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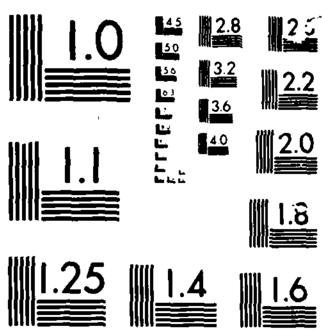

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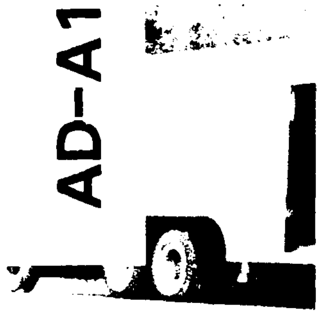

GEOTECHNICAL LABORATORY

TECHNICAL REPORT GL-86-1

CORRELATION OF NONDESTRUCTIVE PAVEMENT EVALUATION TEST RESULTS WITH RESULTS OF CONVENTIONAL QUALITY CONTROL AND IN-SITU STRENGTH TESTS ON AN MX ROAD TEST SECTION

VOLUME II: APPENDIX A

by

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US ARMY ENGINEER WATERWAYS EXPERIMENT STATION

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VOLUME II

APPENDIX A: RESULTS OF MX ROAD TEST SECTION

PART I: DESIGN

Test Philosophy

1. The test philosophy of the MX Road program called for a basic extension of existing criteria as well as a development of site-specific criteria in terms of field soil conditions. To that end, subgrade soils were selected to provide tie points to tests used to develop the conventional criteria and to approximate anticipated field conditions. The test section consisted of five separate items with three separate traffic lanes to provide for a comprehensive spectrum of the soil and pavement types. Figure A1 gives a plan of the proposed test section with traffic lanes and pipe details, and Figure A2 shows a profile for each lane.

2. Items 2, 3, and 4 contained Blends I and II materials. These materials were specially blended to represent field materials. Blend I was considered to be a median gradation sand-gravel combination representative of that often encountered in the uppermost 2 ft of the potential siting area. Blend II was also a sand-gravel combination blended to represent the median gradation of that material encountered below the 2-ft depth.

3. Items 1, 2, and 5 contained heavy clay, crushed limestone, and silt. These materials have been used in previous tests where data were gathered and analyzed in the development of the current Corps of Engineers (CE) pavement design criteria. Thus, their behavioral characteristics are known under certain wheel loads, and the data to be collected will provide for the analysis of MX transporter performance on similar materials and an extension of criteria in terms of these classical soils.

Item 1

4. Item 1 consisted of a low strength soil (design California Bearing Ratio (CBR) = 5) intended to produce results similar to those soils typical of playa areas overlaid by a design thickness of crushed granular or cement-treated Blend I (design cement proportion = 7 percent). Results from this

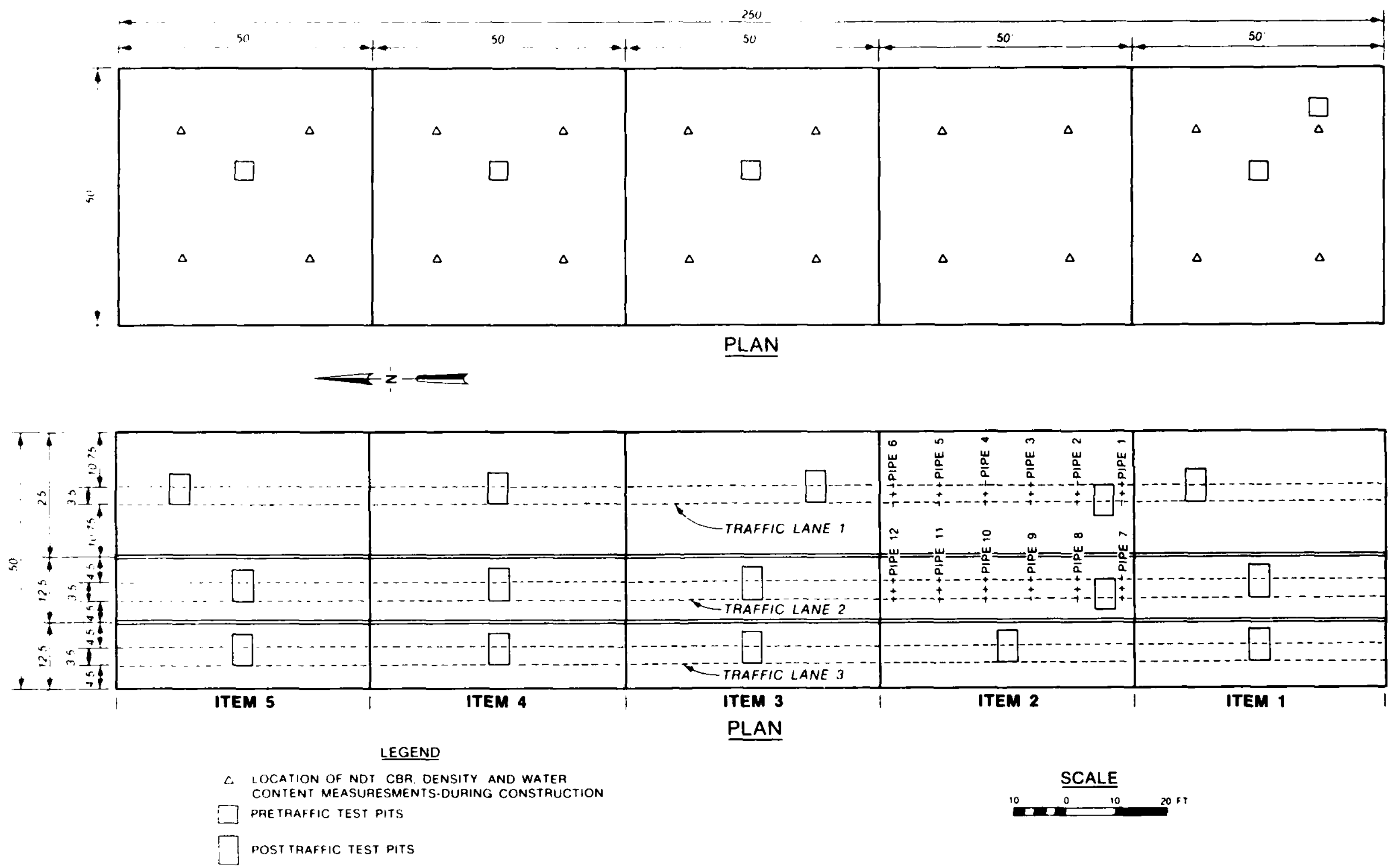

Figure A1. Plan view of test section with traffic lane configuration

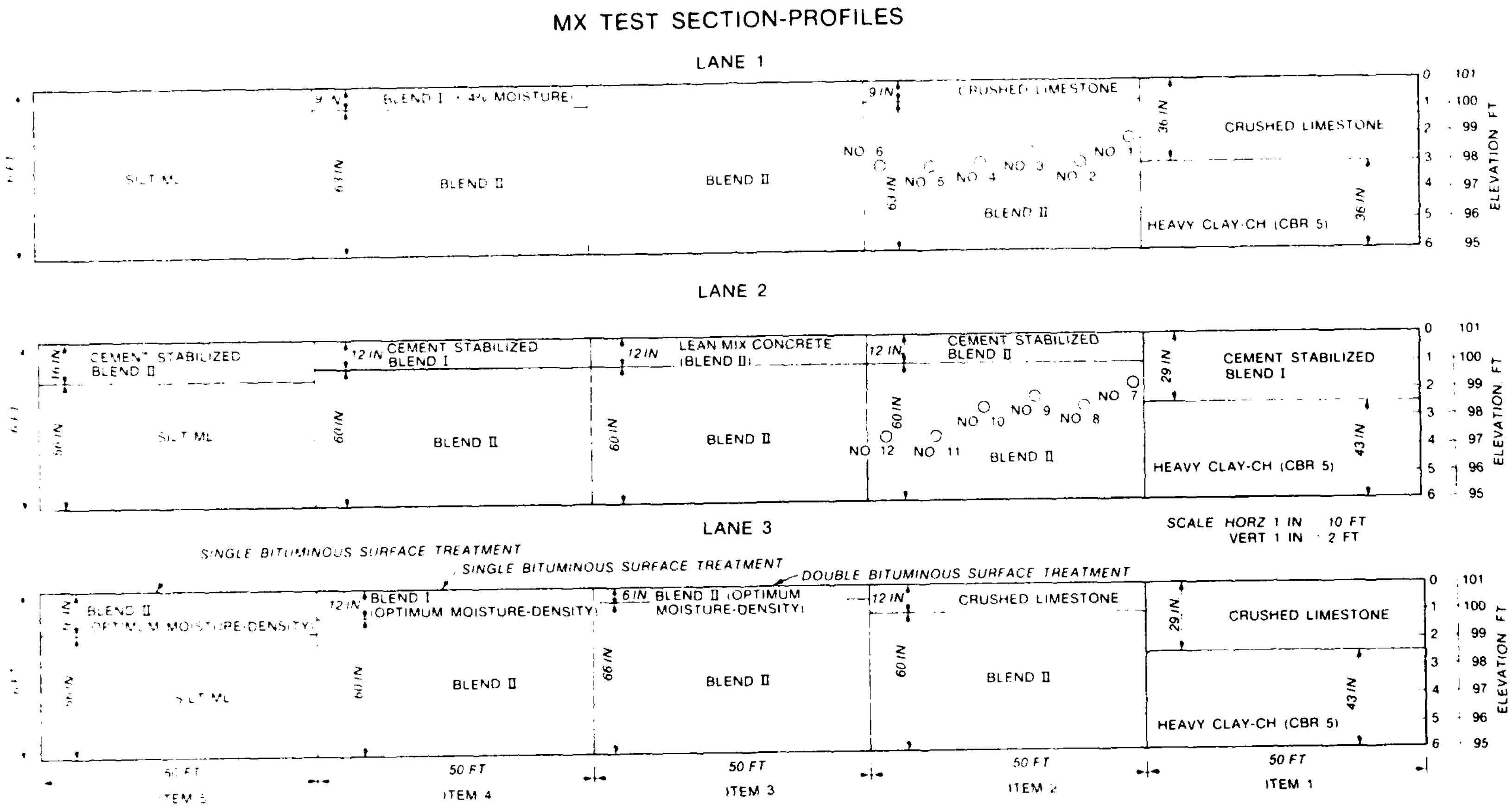

Figure A2. Profiles of traffic lanes 1, 2, and 3

item would confirm thickness requirements for materials above low-strength subgrades.

Item 2

5. Item 2 was constructed to provide data to determine minimum pipe cover requirements. This item consisted of Blend II (design CBR = 15, $\omega \leq 4$ percent) surfaced with crushed limestone and cement-treated Blend II (design cement proportion = 7 percent by weight). The 12-, 18-, and 24-in.-diam instrumented corrugated steel pipes (16 gage) and reinforced concrete pipe (Class IV) were installed in traffic lanes 1 and 2 at different cover depths. A plan view showing locations of all pipes is given in Figure A3 and a profile s ving pipe depths is given in Figure A4.

Item 3

6. Traffic lane 1 (Item 3) consisted entirely of Blend II which represented the unsurfaced in situ granular material from the 2- to 20-ft level. A design CBR value of 15 was selected for the full 6-ft depth. Evaluation of performance would provide confirmation of unsurfaced strength requirements of this material.

7. Traffic lane 2 consisted of a 5-ft layer of Blend II (design CBR = 15, $\omega \leq 4$ percent) overlaid by 1 ft of lean mix concrete (LMC). The aggregate used in the LMC was Blend II, and the design strength was 1,000 psi (28 days).

8. Traffic lane 3 consisted of 5.5 ft of Blend II (design CBR = 15, $\omega \leq 4$ percent) overlaid by 0.5 ft of Blend II (optimum moisture-density) and a double-bituminous surface treatment. Lane 3 provided performance data for the field situation whereby the uppermost 6 in. of Blend II is processed (in place) to the optimum moisture content (corresponding to the maximum CE 55 blow density as determined from the standard compaction test described in Military Standard 621A, Method 100) (Department of Defense 1964),* compacted, and sealed with a wearing surface.

Item 4

9. Traffic lane 1 consisted of 5.25 ft of Blend II (design CBR = 15, $\omega \leq 4$ percent) overlaid by 0.75 ft of Blend I (design CBR = 15, $\omega \leq 4$ percent). This allowed for examination of the performance of materials arranged similarly to in situ conditions.

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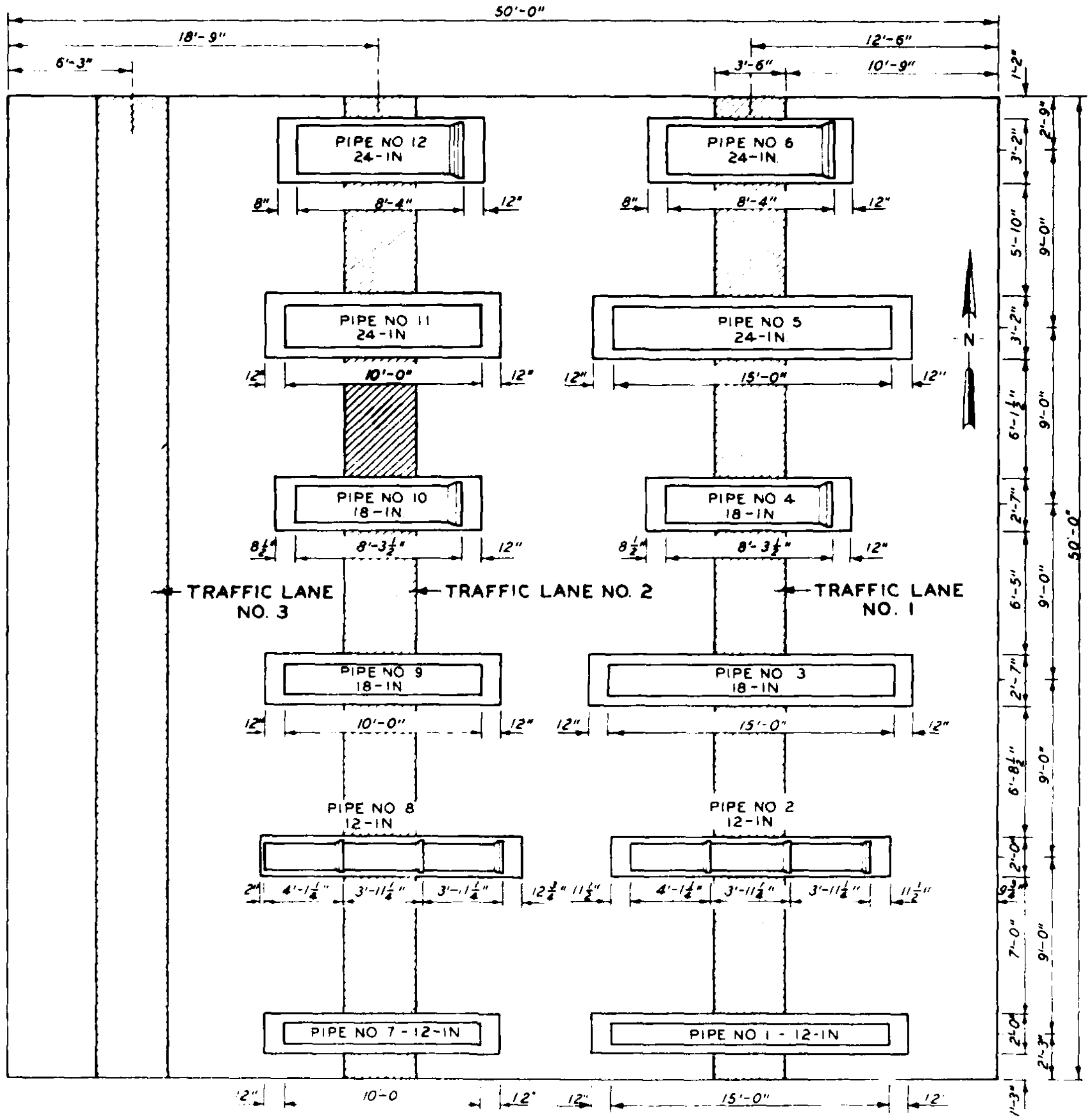
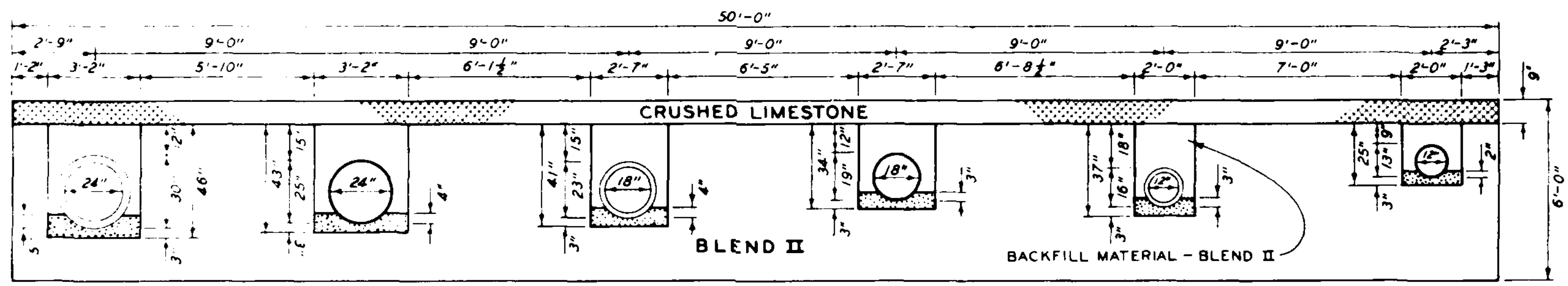
* All references cited in the appendix can be found in the REFERENCES at the end of the main text.

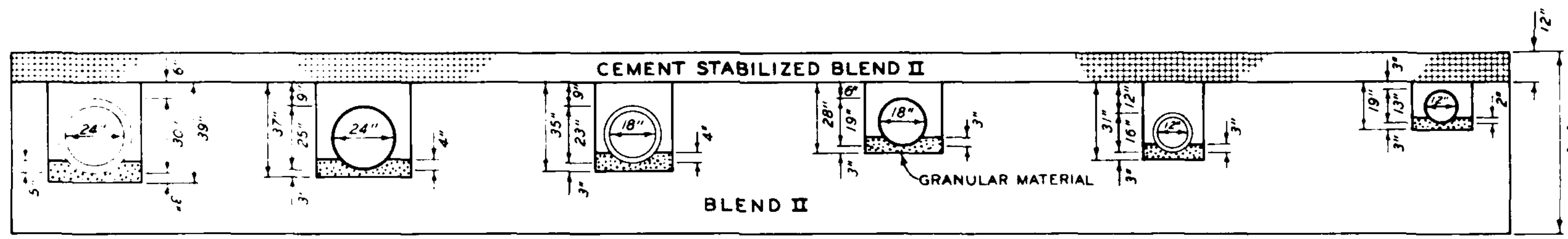


ITEM 2

Figure A3. Plan views showing all pipe locations



PROFILE OF ITEM 2, LANE 1



PROFILE OF ITEM 2, LANE 2

Figure A4. Profile views showing pipe depths

10. Traffic lane 2 consisted of 5 ft of Blend II (design CBR = 15, $\omega \leq 4$ percent) overlaid by 1 ft of cement-stabilized Blend I (design cement proportion = 7 percent).

11. Traffic lane 3 consisted of 5 ft of Blend II (design CBR = 15, $\omega \leq 4$ percent) overlaid by 1 ft of Blend I (optimum moisture-density) and a single-bituminous surface treatment. This simulated a field condition whereby the uppermost material was processed to the optimum moisture content (corresponding to the maximum CE 55 density as determined from the standard compaction test described in Military Standard 621A, Method 100), compacted to the CE 55 maximum density, and sealed with a wearing surface.

Item 5

12. Traffic lane 1 consisted of a silt (ML) material having marginal strength in terms of CBR. This lane provided for minimum unsurfaced fine-grained soil strength requirements.

13. Traffic lane 2 consisted of silt overlaid by 1.3 ft of cement stabilized Blend II (design proportion = 7 percent).

14. Traffic lane 3 consisted of silt overlaid by 1.3 ft of Blend II (optimum moisture-density) and a single-bituminous surface treatment.

Test Site

15. The test section was located at the US Army Engineer Waterways Experiment Station (WES), Vicksburg, Miss., in Hangar 4. Hangar 4 provided overhead shelter to partially protect the test section from changes due to the environment. The soil in this area is a lean clay. The average water table was at a depth of approximately 9 ft. A bench mark located in the southwest corner of the hangar (elevation assumed to be 100.00 ft) was used for all vertical control throughout construction and testing of the MX test section. The hangar floor was leveled before excavation to an elevation of 101.00 ft.

Pavement Elements

Laboratory testing

16. Laboratory testing was performed by the soils laboratory at WES on bulk samples of each soil type to be placed in the test bed. Gradations and Atterberg limits were determined for each of the soils and moisture-density

relationships were developed from the standard compaction test described in Military Standard 621A, Method 100 for the CE 12, CE 26, and CE 55 blow efforts. Other laboratory tests performed on these materials included the quick drained (QD) standard triaxial test, resilient modulus test, and repeated load triaxial test for which the results are tabulated in Tables A1, A2, and A3, respectively.

Heavy clay (CH)

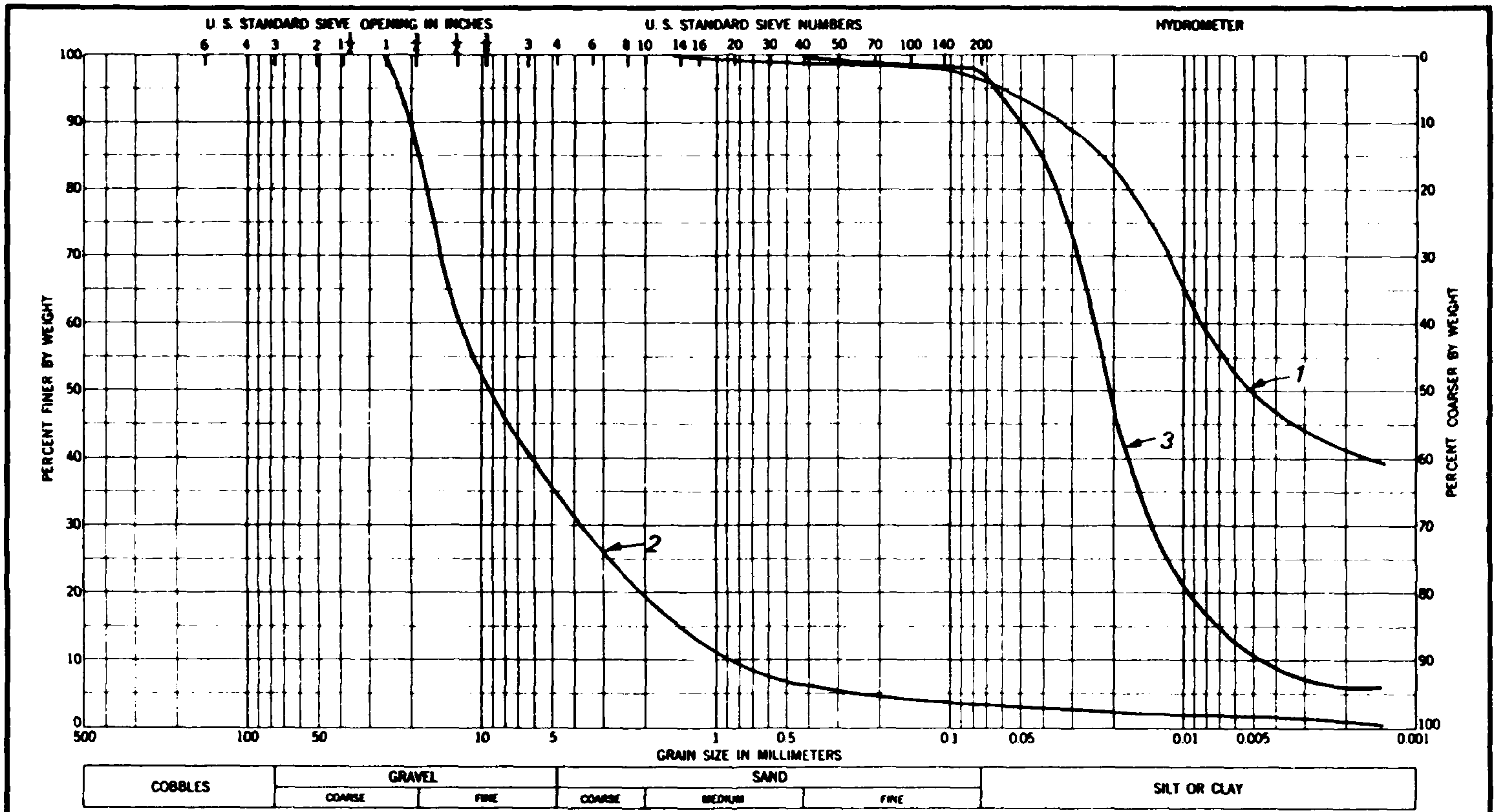
17. The bottom 3 ft of Item 1, lane 1 (el 95.0 to 98.0 ft) and the bottom 3.58 ft of Item 1, lanes 2 and 3 (el 95.0 to 98.58 ft) consisted of a heavy clay (CH) material as shown by curve 1 in Figure A5. This material had a liquid limit (LL) of 66 and a plasticity index (PI) of 48. The clay, locally known as buckshot, was obtained from a backswamp deposit along the Mississippi River near Mound, La. Laboratory compaction and CBR data for the as-molded and soaked conditions are shown in Figures A6 and A7, respectively. These data indicated a CBR of about 4 to 5 at molding water contents of 31 to 33 percent for both conditions. Experience has shown that the heavy clay will retain a constant moisture content and strength over a long period of time. Therefore, this material was chosen for the controlled strength subgrade in Item 1.

Crushed limestone

18. The upper 3 ft of Item 1, lane 1 (el 98.0 to 101.0 ft), the upper 2.42 ft of Item 1, lane 3 (el 98.58 to 101.0 ft), the upper 0.75 ft of Item 2, lane 1 (el 100.25 to 101.0 ft), and the upper 1 ft of Item 2, lane 3 (el 100.0 to 101.0 ft) consisted of a crushed limestone material as shown by curve 2 in Figure A5. The No. 610 crushed limestone was obtained from West Mississippi Material in Jackson, Miss. Laboratory compaction and CBR data for the as-molded and soaked conditions are shown in Figures A8 and A9, respectively. From these data, design compaction water content of 4 to 6 percent was selected to obtain the maximum density and strength possible.

Silt

19. The entire 6-ft thickness of Item 5, lane 1 (el 95.0 to 101.0 ft) and the bottom 4.67 ft of Item 5, lanes 2 and 3 (el 95.0 to 99.67 ft) consisted of a silt (ML) or loess material as shown by curve 3 in Figure A5. This material had an LL of 32 and a PI of 8. The silt was obtained from a high hilltop at WES in Vicksburg, Miss. Laboratory compaction and CBR data for the as-molded and soaked conditions are shown in Figures A10 and A11,



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
1		HEAVY CLAY (CH)		66	18	48
2		CRUSHED LIMESTONE		NP		
3		SILT (ML)		32	24	8

Project
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Date

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Figure A5. Grading curves for heavy clay, silt, and crushed limestone

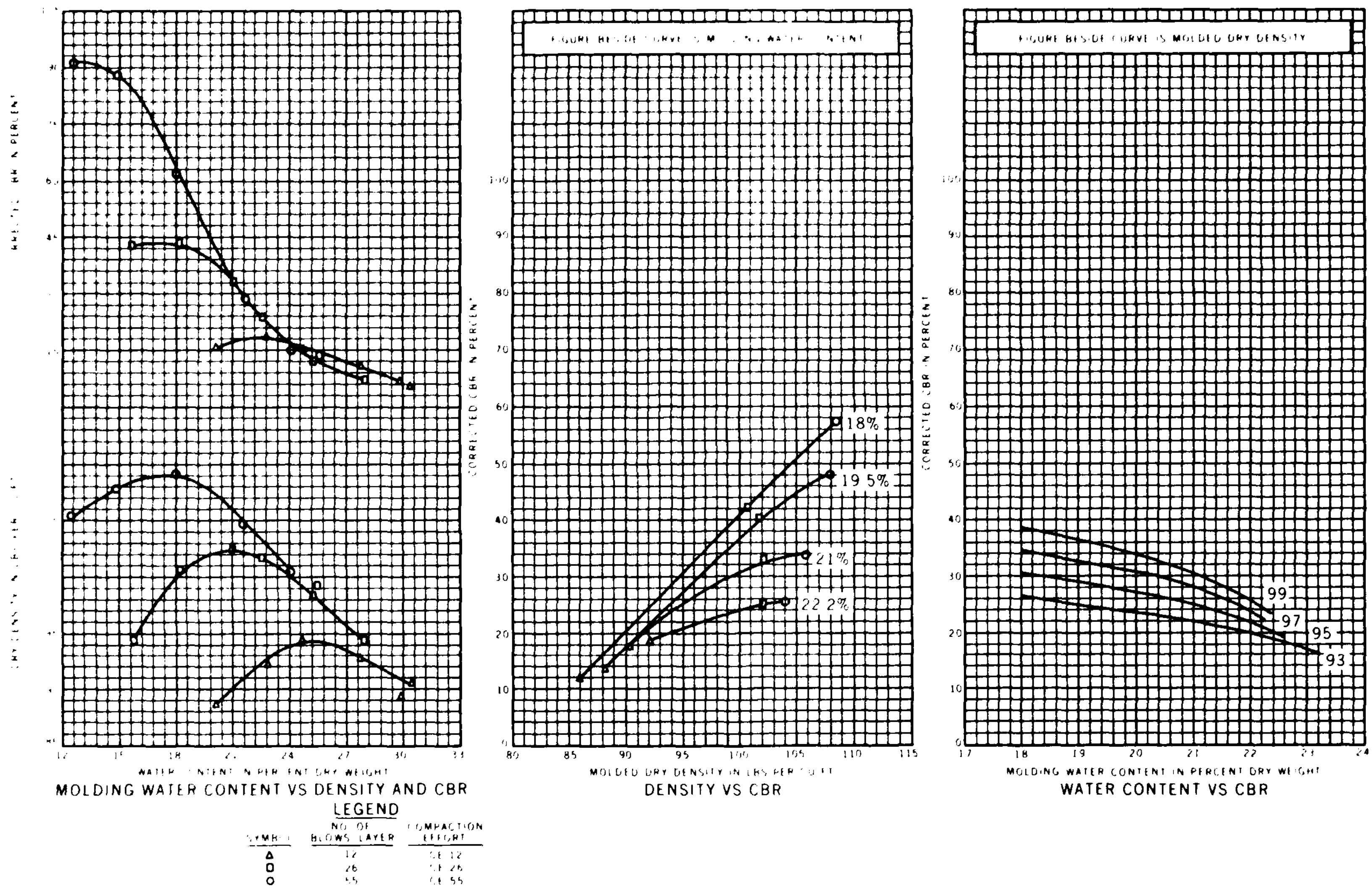


Figure A6. CBR, density, and water content data for heavy clay material (tested as molded)

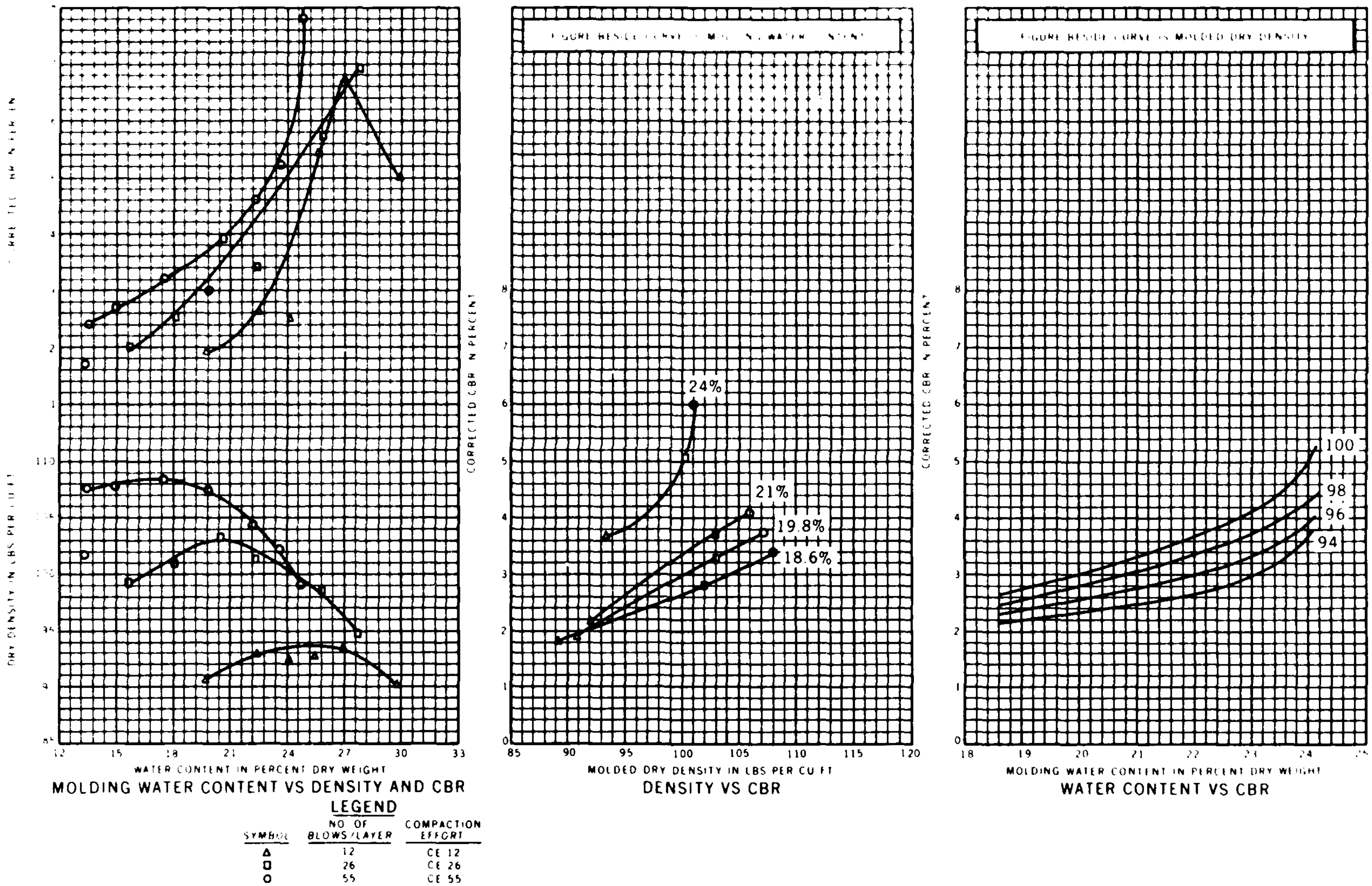


Figure A7. CBR, density, and water content data for heavy clay material (tested after soaking)

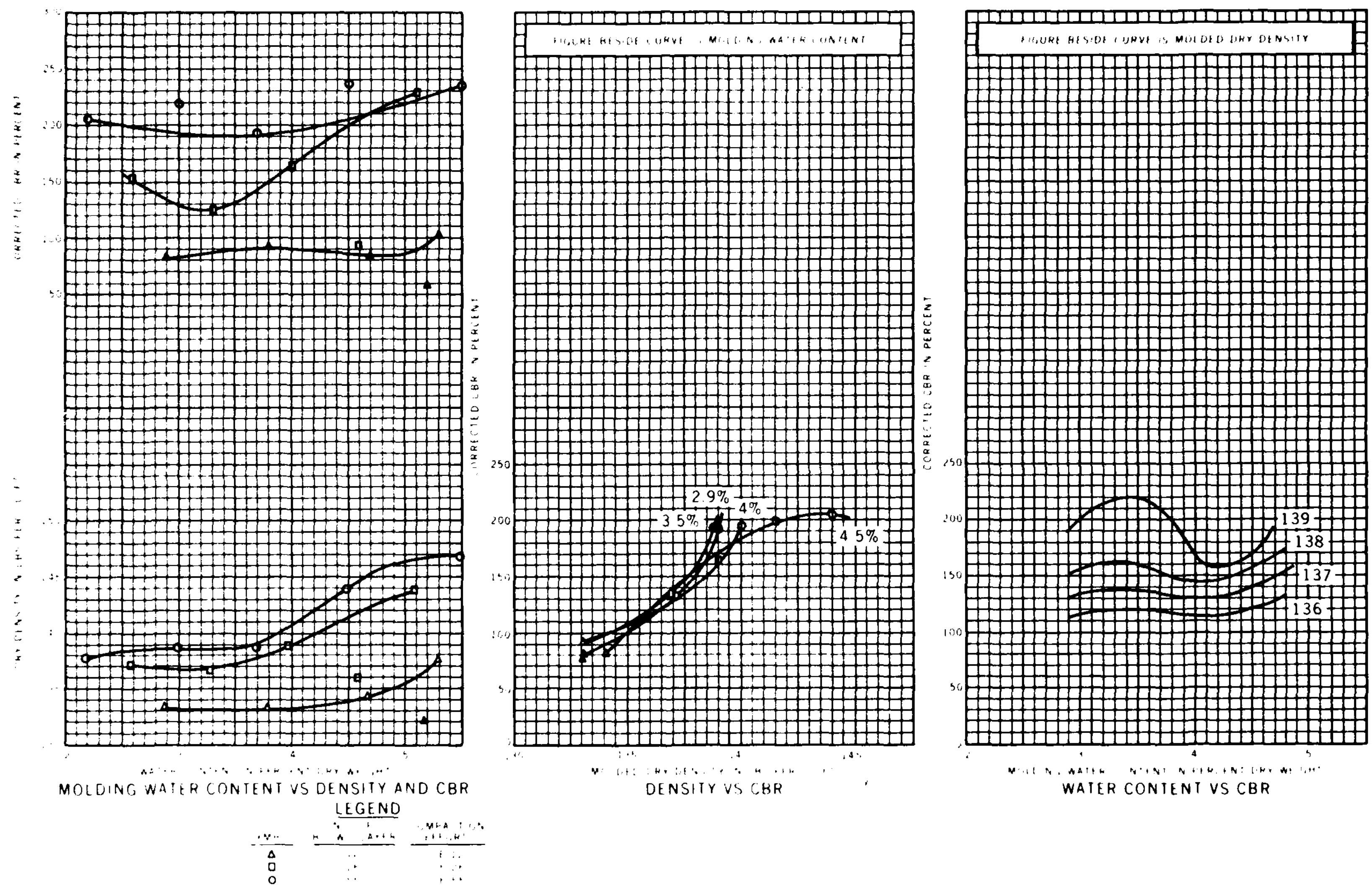


Figure A8. CBR, density, and water content data for crushed limestone (tested as molded)

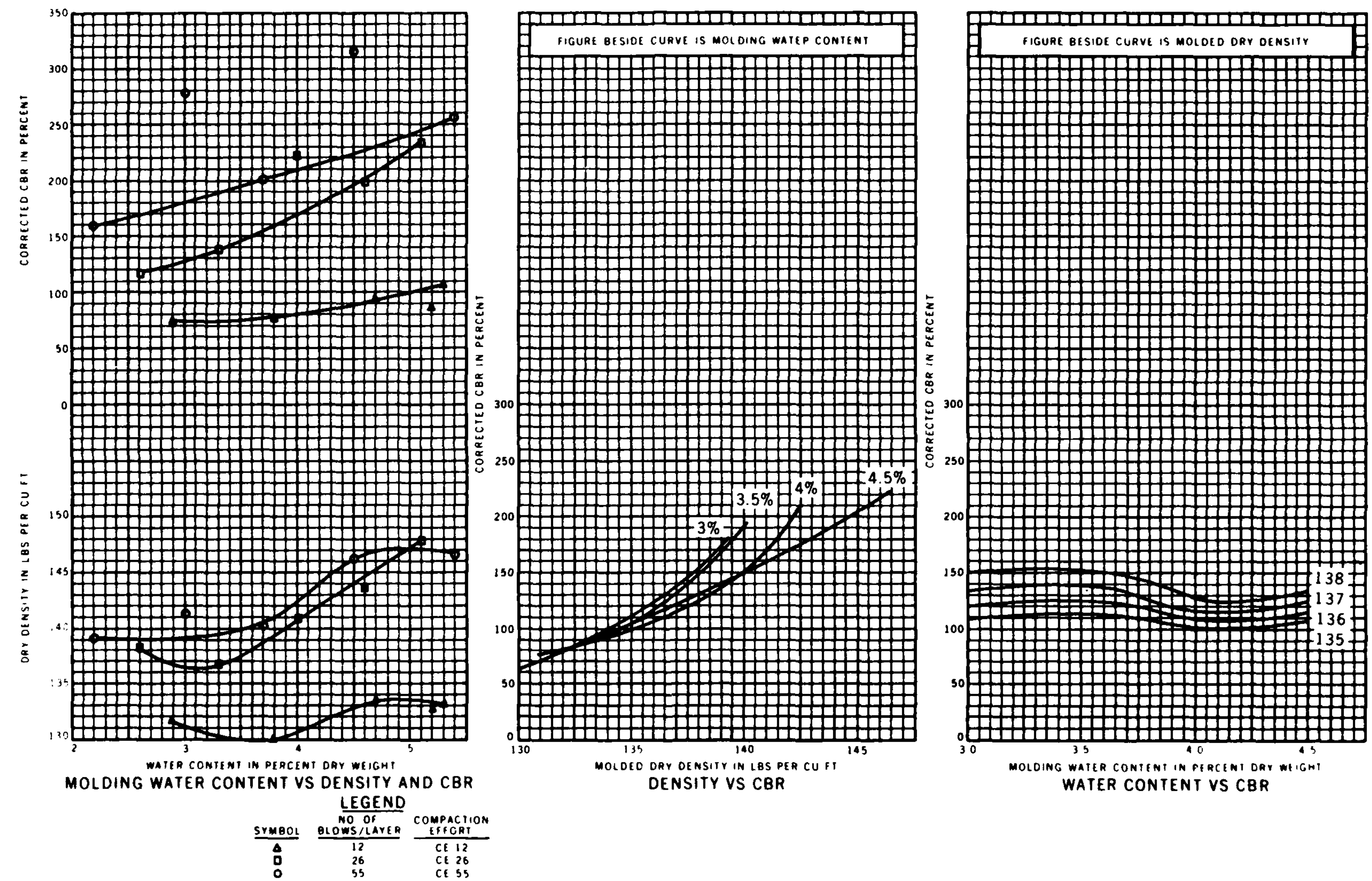


Figure A9. CBR, density, and water content data for crushed limestone (tested after soaking)

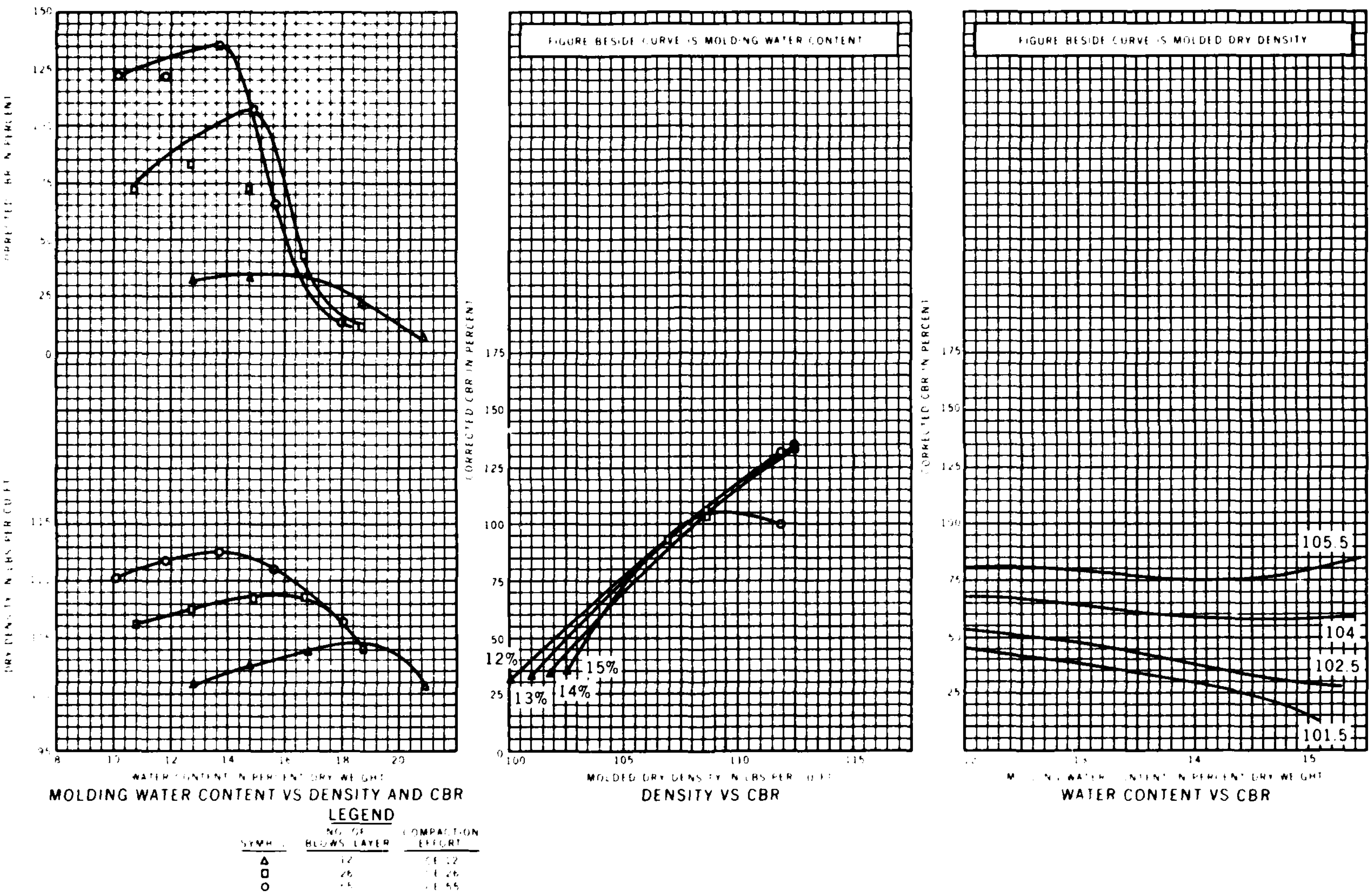


Figure A10. CBR, density, and water content data for silt (tested as molded)

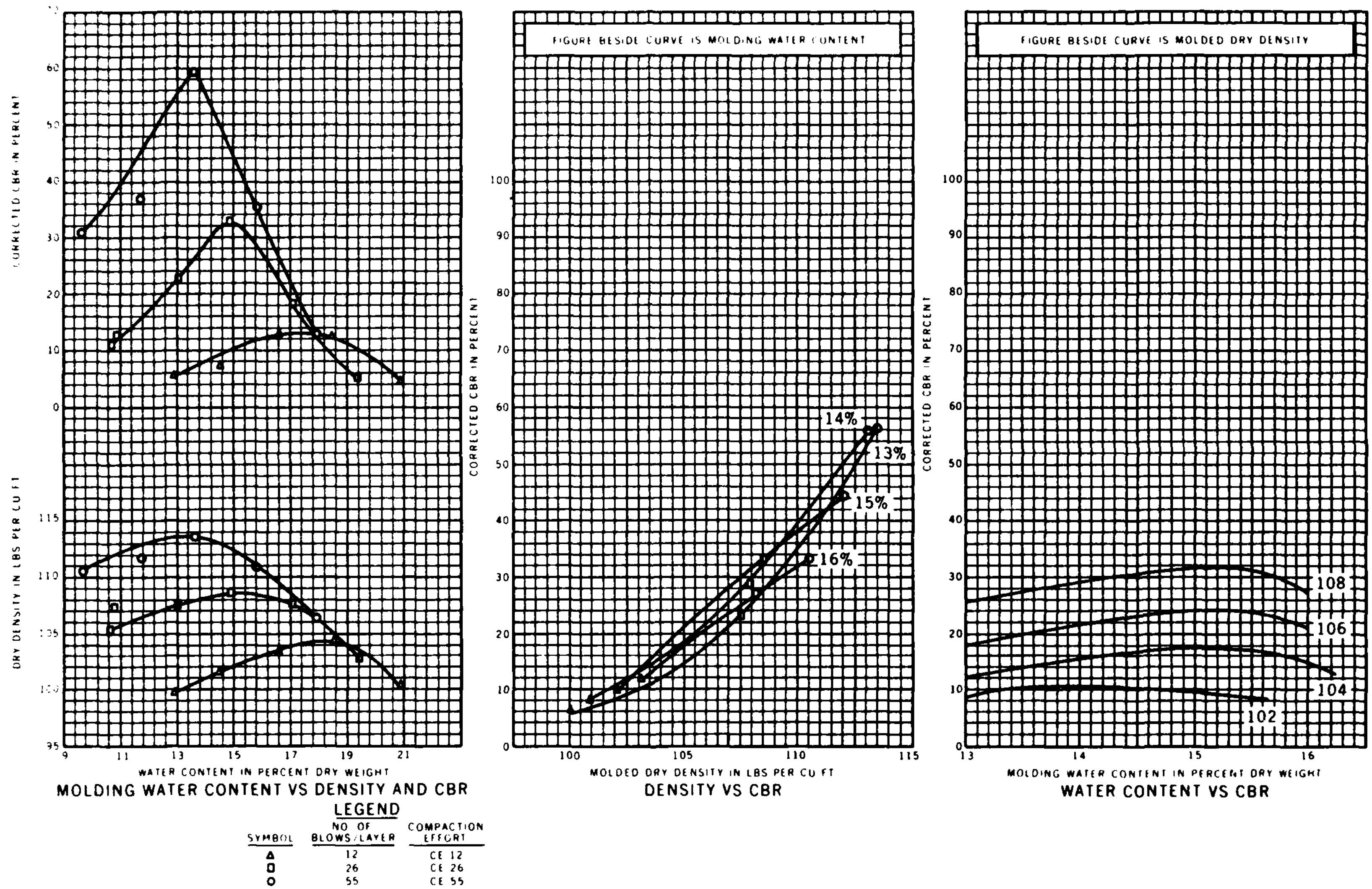


Figure A11. CBR, density, and water content data for silt (tested after soaking)

respectively. From these data, a design compaction water content of 17 to 18 percent was selected for compaction control to result in an as-constructed CBR of 15.

Blend I

20. The upper 0.75 ft of Item 4, lane 1 (el 100.25 to 101.0 ft) and the upper 1 ft of Item 4, lane 3 (el 100.0 to 101.0 ft) consisted of Blend I material as shown by curve 2 in Figure A12. This material was blended at WES using aggregates that were readily available in the vicinity. The objective was to obtain a gradation similar to that anticipated at depths of 0 to 2 ft in the proposed construction area. A median gradation for this material, shown by curve 1 of Figure A12, was determined at WES based on data obtained from Fugro, Inc./Consulting Engineers and Geologists (now ERTEC). Fugro, Inc., sampled seven areas within the Great Basin Site.

21. The aggregates and proportions used to obtain Blend I were as follows:

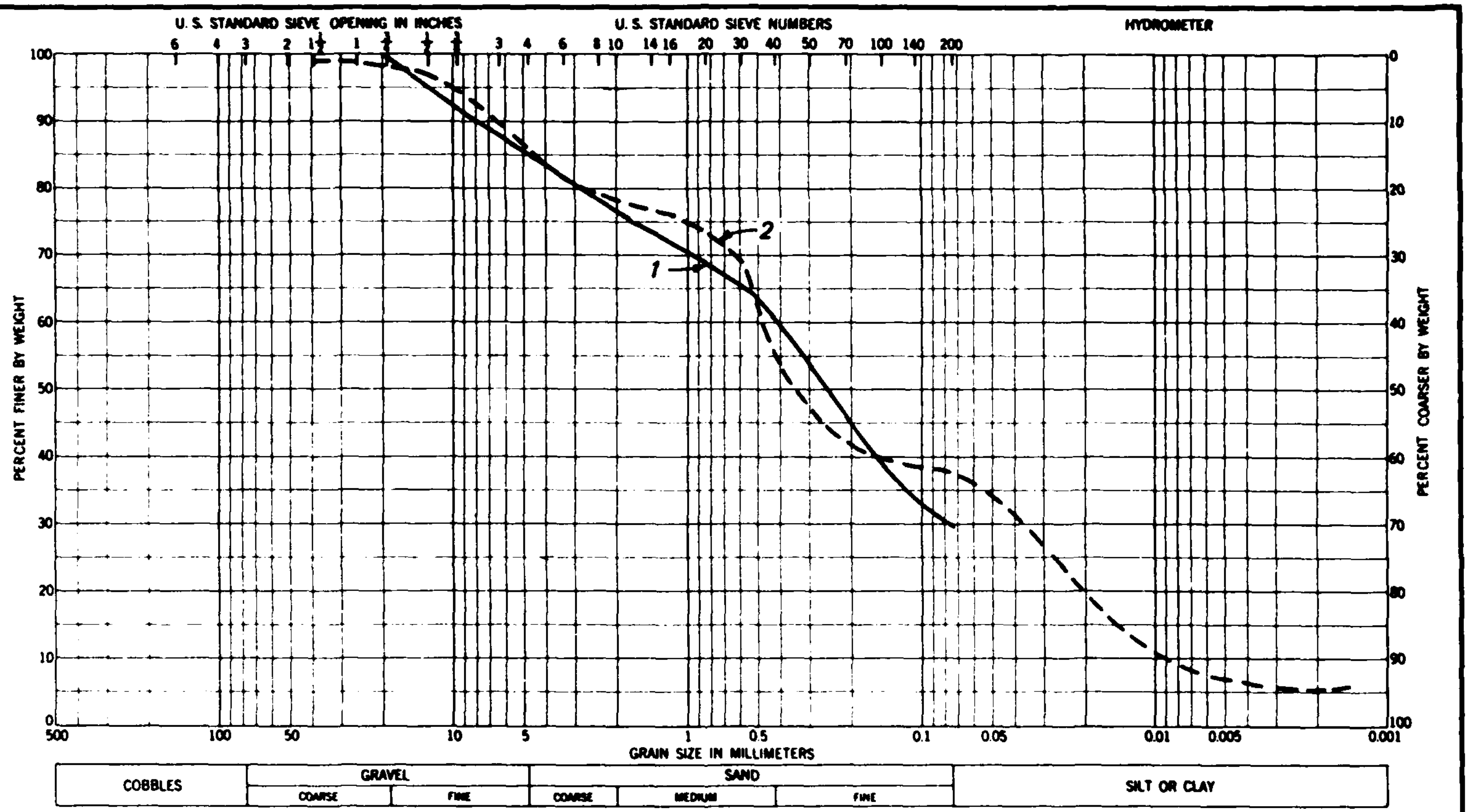
12 percent	Concrete sand
27 percent	Crushed gravel
28 percent	Campbell's Swamp sand
33 percent	Silt

Grading curves for these aggregates are shown in Figure A13, curves 2 to 5. Mixing of the aggregates was accomplished by using front-end loaders and a pulvimixer (Photos A1 and A2).

22. Laboratory compaction and CBR data for the as-molded and soaked conditions are shown in Figures A14 and A15, respectively. A design compactive water content of 2 to 3 percent was selected for the upper 0.75 ft of Item 4, lane 1 (el 100.25 to 101.0 ft) to obtain a design CBR of 15. A design compactive water content of 6 to 8 percent (optimum) was selected for the upper 1 ft of Item 4, lane 3 (el 100.0 to 101.0 ft).

Blend II

23. The bottom 5.25 ft of Item 2, lane 1 (el 95.0 to 100.25 ft), the bottom 5 ft of Item 2, lanes 2 and 3 (el 95.0 to 100.0 ft), the entire 6-ft depth of Item 3, lanes 1 and 3 (el 95.0 to 101.0 ft), the bottom 5 ft of Item 3, lane 2 (el 95.0 to 100.0 ft), the bottom 5.25 ft of Item 4, lane 1 (el 95.0 to 100.25 ft), the bottom 5 ft of Item 4, lanes 2 and 3 (el 95.0 to 100.0 ft), and the upper 0.33 ft of Item 5, lane 3 (el 99.67 to 101.0 ft) consisted of Blend II material as shown by curve 2 of Figure A16. This material was



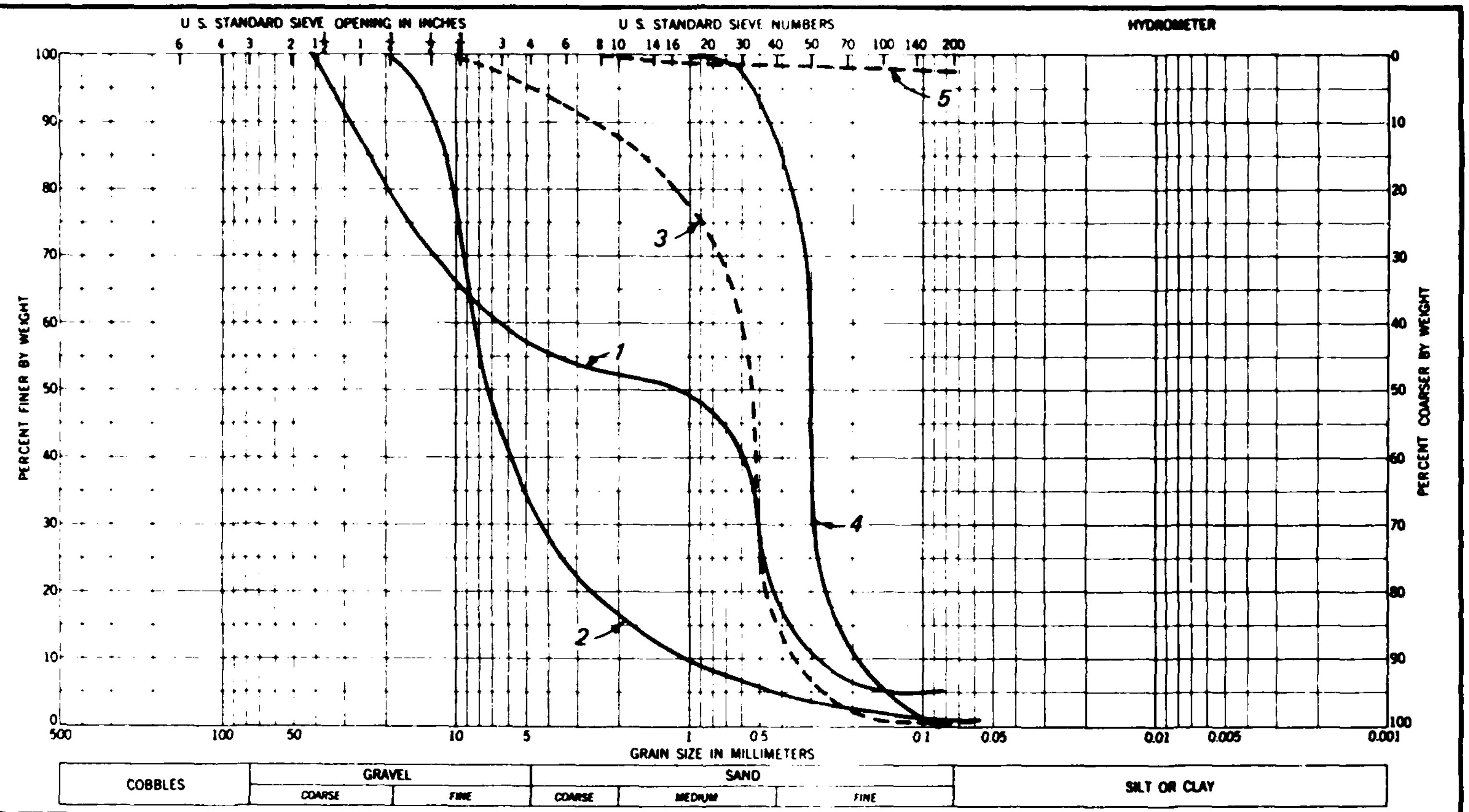
Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
1		MEDIAN GRADATION: 0-2 FT DEPTH		—	—	—
2		BLEND I		23	17	6

Project
Area
Boring No.
Date

GRADATION CURVES

ENG FORM 1 MAY 63 2087

Figure A12. Desired and actual grading curves for Blend I



Sample No	Elev or Depth	Classification	Nat w %	LL	PL	PI
1		SANDY GRAVEL				
2		CRUSHED GRAVEL				
3		CONCRETE SAND				
4		CAMPBELL SWAMP SAND				
5		SILT				

Project

Area

Boring No.

Date

GRADATION CURVES

ENG FORM 1 MAY 63 2087

Figure A13. Grading curves for those aggregates mixed to obtain Blends I and II

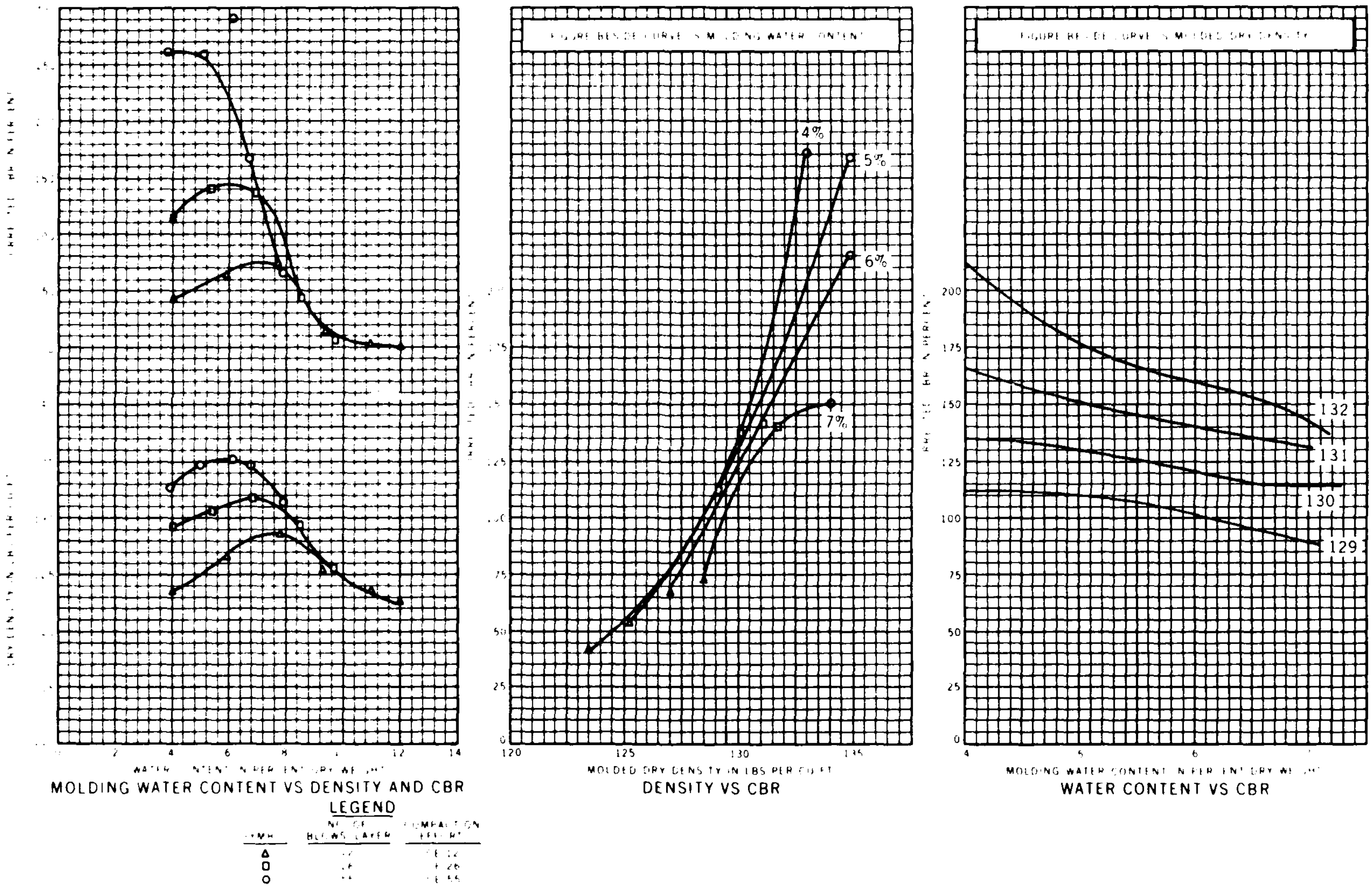


Figure A14. CBR, density, and water content data for Blend I (tested as molded)

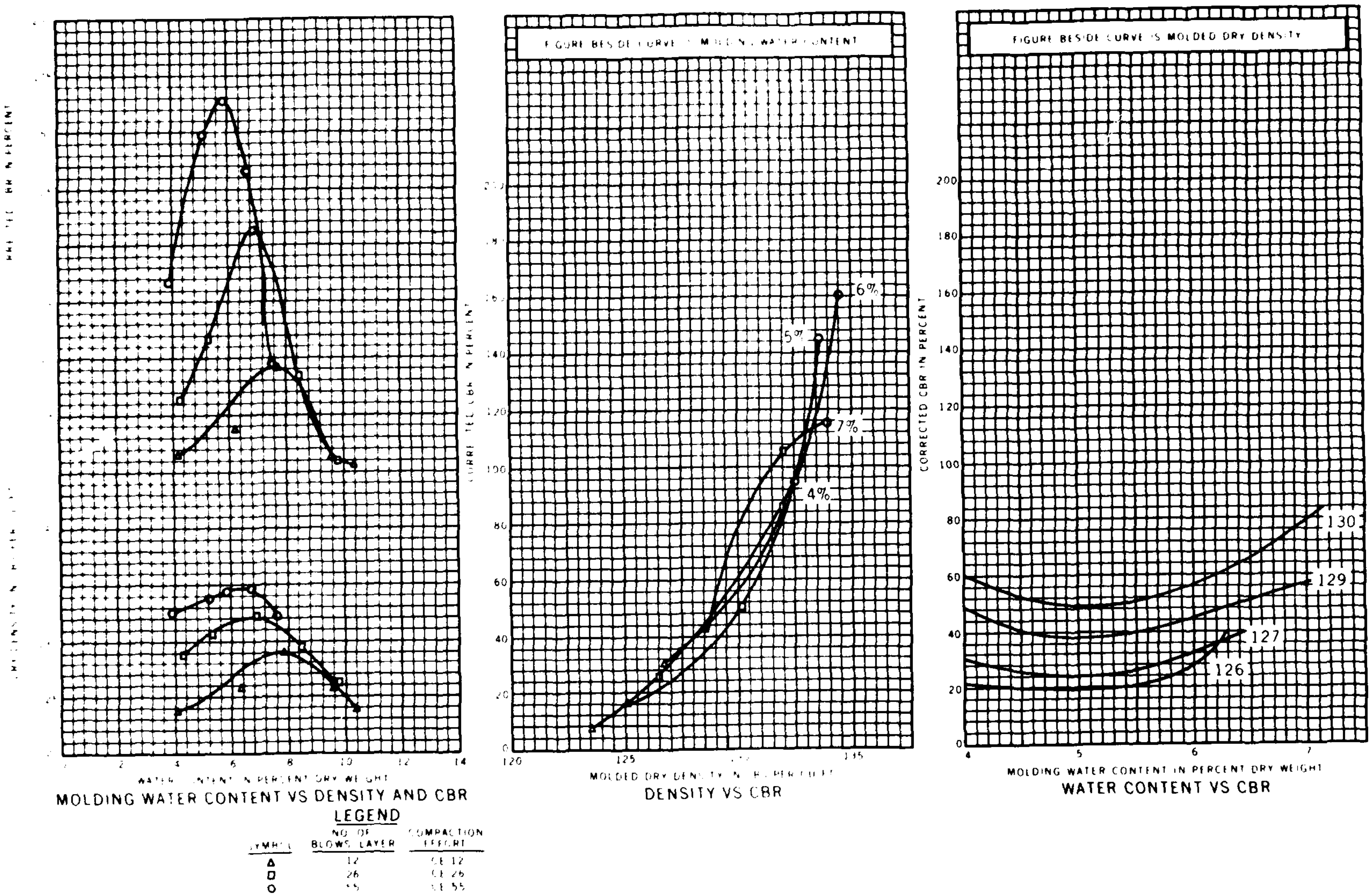
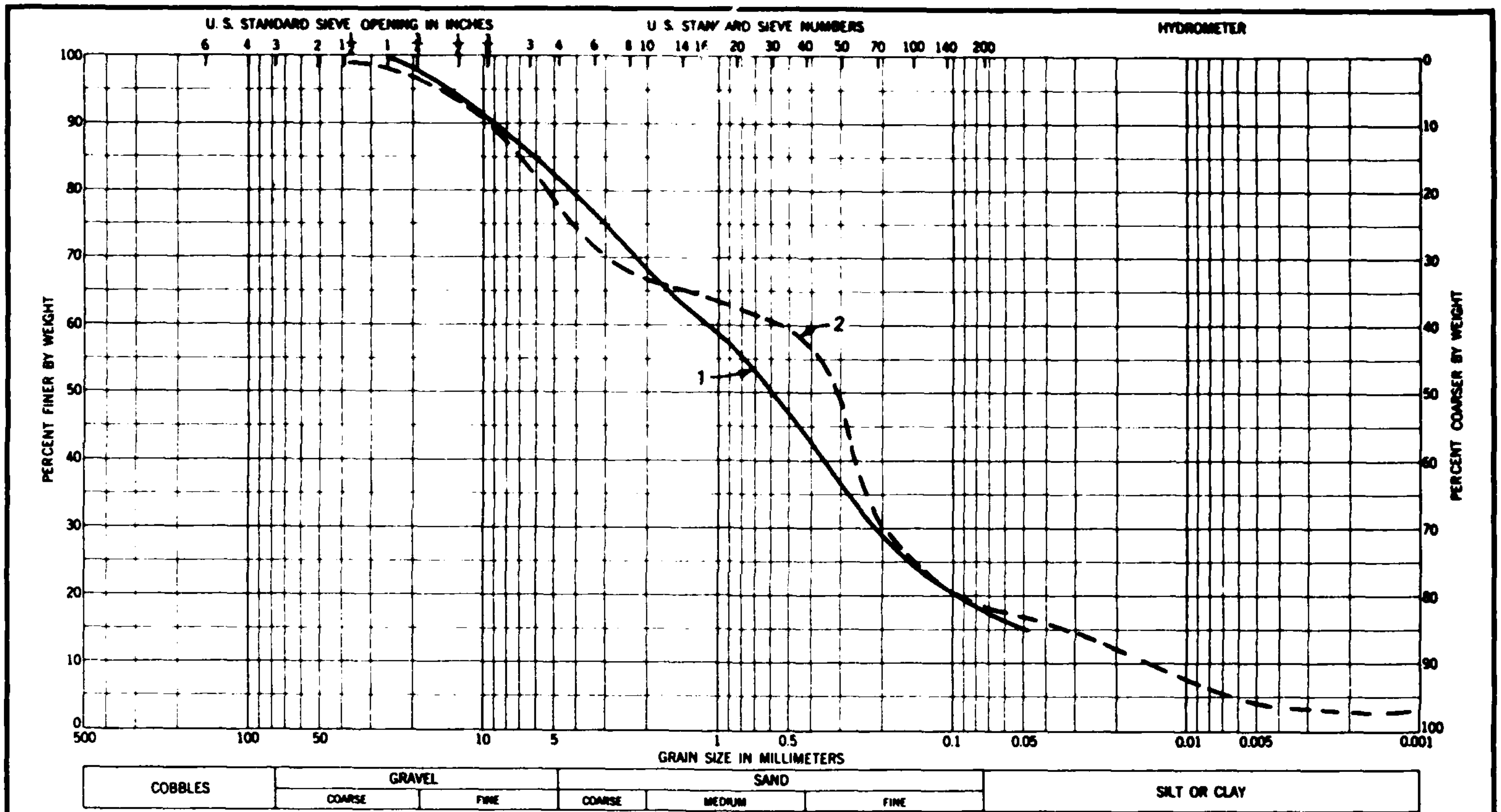


Figure A15. CBR, density, and water content data for Blend I (tested after soaking)



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
1		MEDIAN GRADATION: 2-20 FT DEPTH		—	—	—
2		BLEND II		18	13	5

Project

Area

Boring No.

Date

GRADATION CURVES

ENG FORM 1 MAY 63 2087

Figure A16. Desired and actual grading curves for Blend II

blended at WES using aggregates that were readily available in the vicinity. The objective was to obtain a gradation similar to that anticipated at depths of 2 to 20 ft in the proposed construction area. A median gradation for this material, shown by curve 1 of Figure A16, was determined by WES Geology personnel based on data obtained from Fugro, Inc. Samples were obtained from seven areas within the Great Basin Site.

24. The aggregates and proportions used to obtain Blend II were as follows:

24 percent	Sandy gravel
22 percent	Concrete sand
25 percent	Crushed gravel
10 percent	Campbell Swamp sand
19 percent	Silt

Grading curves for these aggregates are shown in Figure A13, curves 1 to 5. Mixing of the aggregates was accomplished using front-end loaders and a pulvimixer.

25. Laboratory compaction and CBR data for Blend II in the as-molded and soaked conditions are shown in Figures A17 and A18, respectively. A design compaction water content of 3 to 4 percent was selected for Items 2, 3, and 4 (with the exception of the upper 0.5-ft layer of Item 3, lane 3) to result in an as-constructed CBR of 15. The upper 0.5 ft of Item 2, lane 3 (el 100.5 to 101.0 ft) and the upper 0.33 ft of Item 5, lane 3 (el 99.67 to 101.0 ft) were compacted at a water content of 5 to 7 percent (optimum).

Cement stabilized Blend I

26. The upper 2.42 ft of Item 1, lane 2 (el 98.58 to 101.0 ft) and the upper 1 ft of Item 4, lane 2 (el 100.0 to 101.0 ft) consisted of cement-stabilized Blend I material. Portland cement (Type 1) was added to Blend I at a moisture content of 8 percent. Mixing was accomplished using a pulvimixer. The addition of 250 lb of cement per cubic yard of Blend I yielded a cement content of approximately 7 percent.

Cement stabilized Blend II

27. The upper 1 ft of Item 2, lane 2 (el 100.0 to 101.0 ft) and the upper 0.33 ft of Item 5, lane 2 (el 99.67 to 101.0 ft) consisted of cement-stabilized Blend II material. Portland cement (Type 1) was added to Blend II at a moisture content of 8 percent. Mixing was accomplished with a pulvimixer. A design cement content of 7 percent was obtained by adding 300 lb of cement per cubic yard of Blend II.

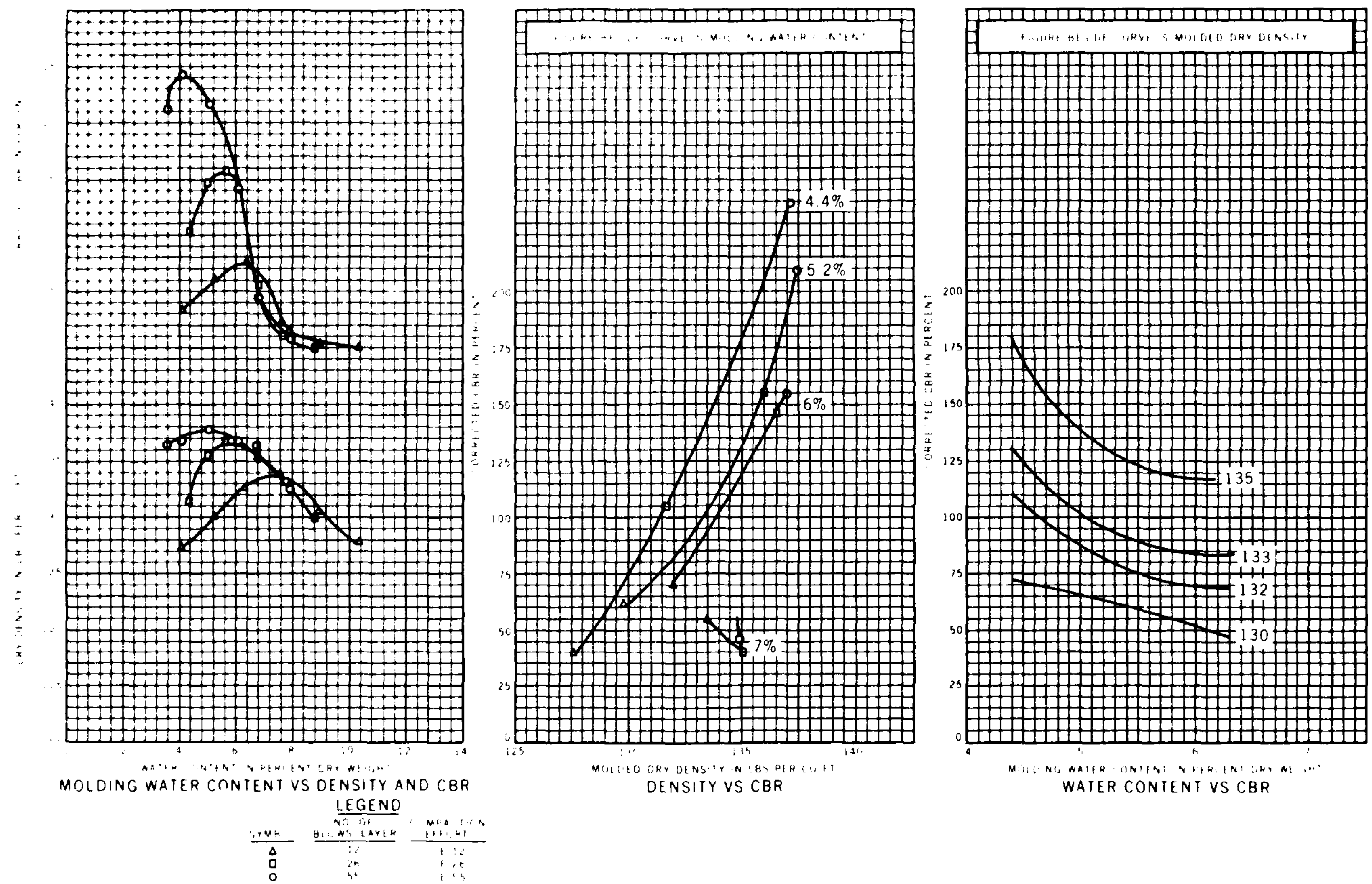


Figure A17. CBR, density, and water content data for Blend II (tested as molded)

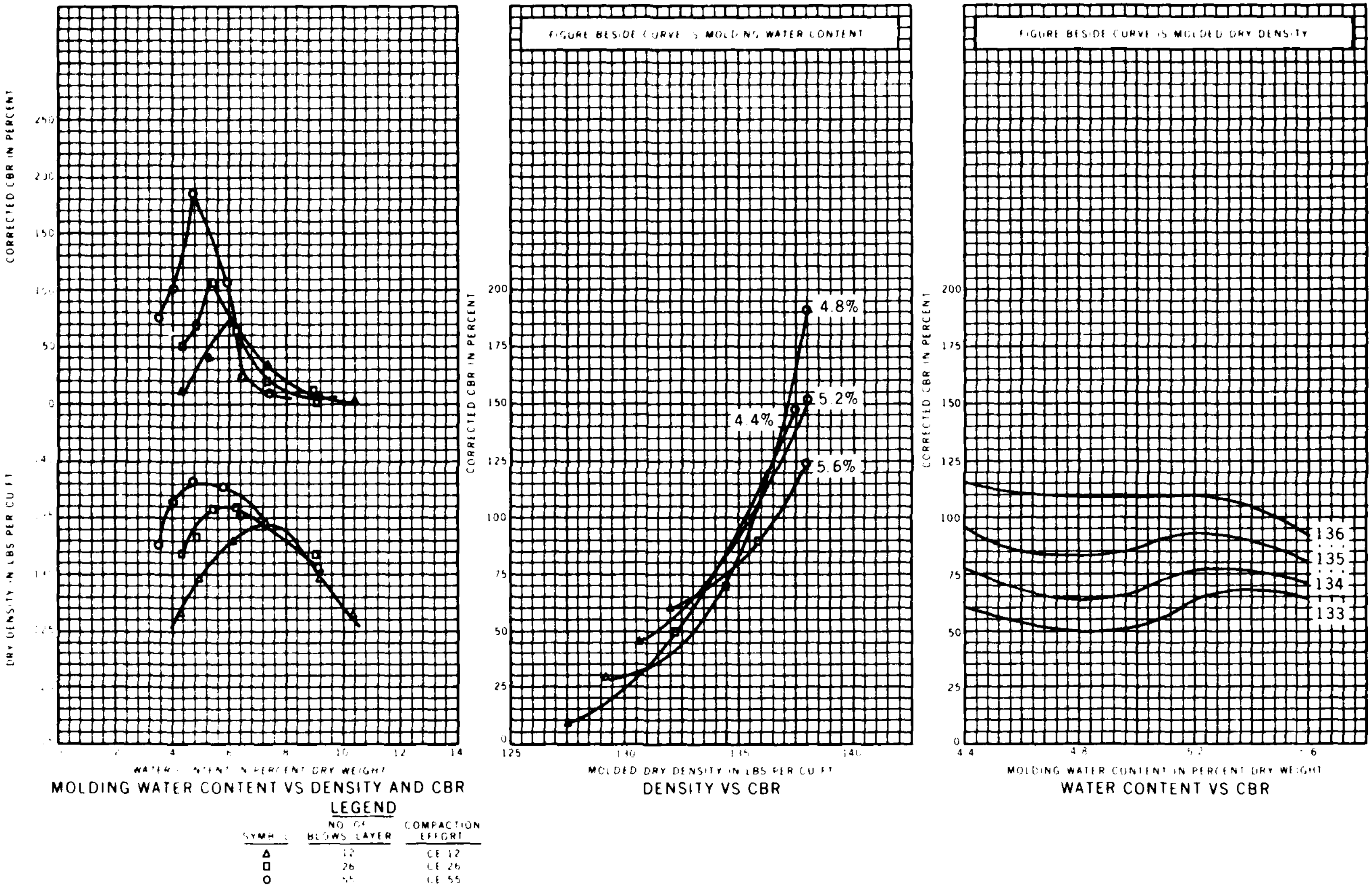


Figure A18. CBR, density, and water content data for Blend II (tested after soaking)

Lean mix concrete

28. The upper 1 ft of Item 3, lane 3 (el 100.0 to 101.0 ft) consisted of a lean mix concrete. Blend II material was utilized as aggregate and a design cement content of 300 lb/cu yd was specified. The lean mix concrete was batched at a local plant, delivered to the test site in ready-mix trucks, and placed at slumps of 5 to 7 in. The 28-day compressive strength of the lean mix concrete was 1,000 psi.

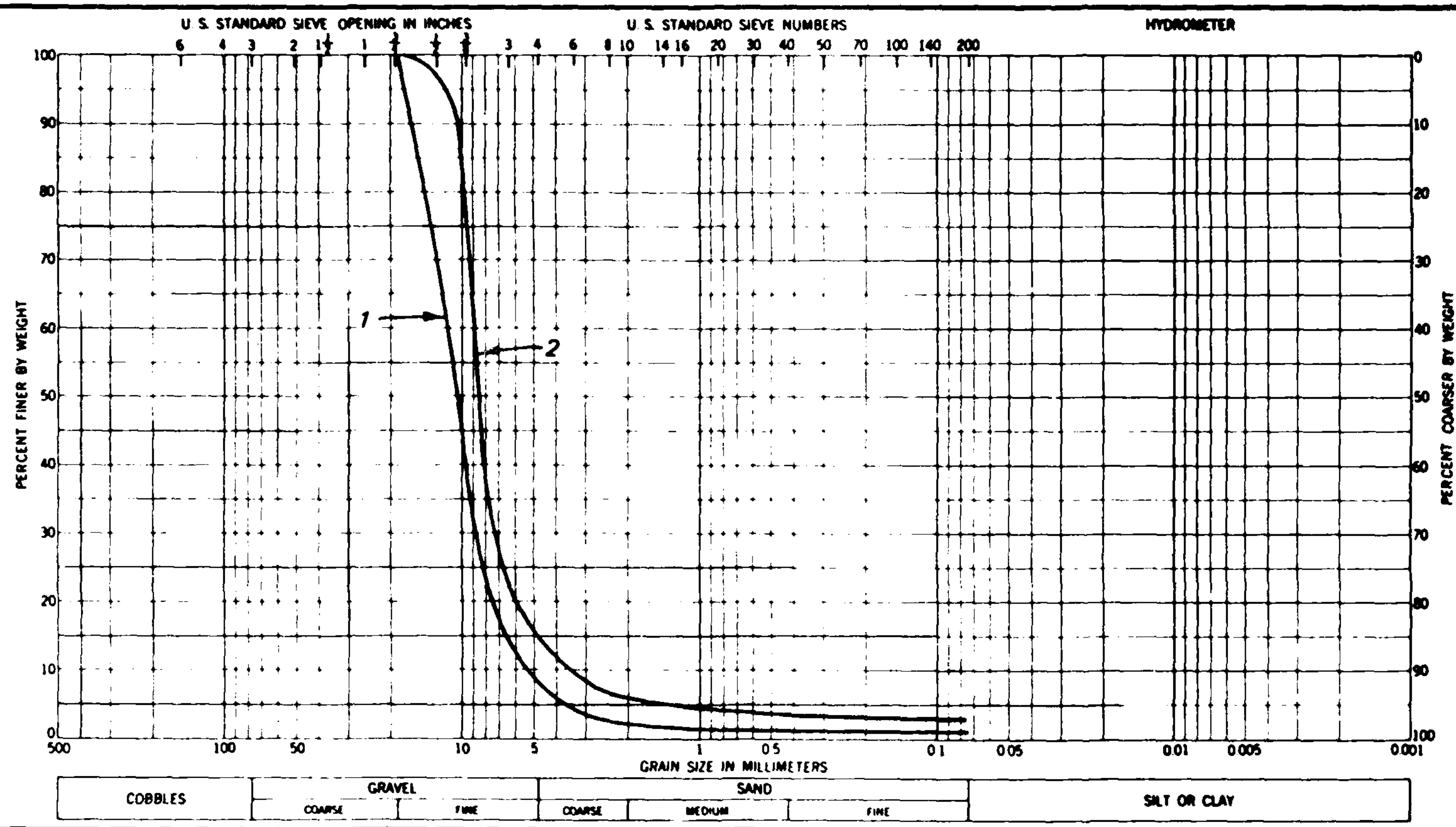
Single-bituminous surface treatment

29. A single-bituminous surface treatment (SBST) was placed on Items 4 and 5, lane 3. The blended materials beneath the surface treatment were placed at optimum moisture content and compacted to achieve the maximum CE 55 density. The surface was primed with an MC-70 asphalt at a rate of 0.3 gal/sq yd prior to application of the SBST. The SBST was constructed using an RS-3K emulsion (65 percent AC) at a rate of 0.42 gal/sq yd and a crushed limestone aggregate as shown by curve 1 in Figure A19.

Double-bituminous surface treatment

30. A double-bituminous surface treatment (DBST) was placed on Item 3, lane 3. Six inches of the Blend II material beneath the DBST were placed at optimum moisture content and compacted to the maximum CE 55 blow density. The first treatment was constructed exactly like the SBST's described previously. The surface was primed with an MC-70 asphalt (0.3 gal/sq yd) followed by an RS-3K emulsion (0.42 gal/sq yd) and crushed limestone (curve 1 in Figure A19).

31. The second layer of the DBST was constructed applying RS-3K emulsion at a lower rate of 0.33 gal/sq yd with a smaller crushed limestone aggregate as shown by curve 2 in Figure A19.



Sample No	Elev or Depth	Classification	Nat w %	LL	PL	PI
1		CRUSHED LIMESTONE (GP)		NP		
2		CRUSHED LIMESTONE (GP)		NP		

Project

Area

Boring No

Date

GRADATION CURVES

ENG FORM 1 MAY 63 2087

Figure A19. Grading curves for aggregates used in surface treatments

PART II: SOIL INSTRUMENTATION

Electronic Gages

32. Instrumentation for measuring vertical deflection, vertical stress, and pore pressure was included in Items 1, 3, and 5, lane 1. All gages were located along the center line of traffic lane 1. Gage type, designation, and location data are tabulated in Table A4, and a profile of lane 1 with instrumentation is shown in Figure A20.

Deflection gages

33. Vertical deflections were measured at 3- and 6-ft depths with linear variable differential transformer (LVDT) displacement transducers mounted within WES deflection gage housings (Photo A3). The LVDT produced direct current (d-c) output voltages directly proportional to the movement of the sensing unit. The transducer consisted of a main body, which housed the sensing coil and its associated electronics, and a core, which was movable through the center of the sensing coil to transfer the mechanical movement of the core to a change in an electrical signal in the coil. The LVDT transducers were mounted on reference rods that extended to reference flanges located approximately 10 ft below the bottom of the test bed. The reference rods were cased with 2-in. polyvinyl chloride (PVC) pipe attached to the gage housing with flexible hose.

WES soil pressure cells

34. WES soil pressure cells were located at 1-, 2-, and 3-ft depths. The cells (shown in Photo A3) were 6 in. in diameter, were fabricated from stainless steel, and used a mercury-filled fluid chamber with diaphragm and a full wheatstone bridge circuit consisting of four SR-4 strain gages hermetically sealed within the cell. Pressure applied to the face plate of the cell was transmitted through the mercury in the fluid chamber to an internal flexible diaphragm, and the resulting deflection of the diaphragm was proportional to the load. The four SR-4 strain gages were mounted on the diaphragm and were actuated by its deflection. The full wheatstone bridge circuit practically eliminated the effects of temperature and of resistance variations in the lead wires. Cells located at 1-ft depths were rated at 100 psi and cells at 2- and 3-ft depths were rated at 50 psi. These cells could however withstand greater pressures without damage.

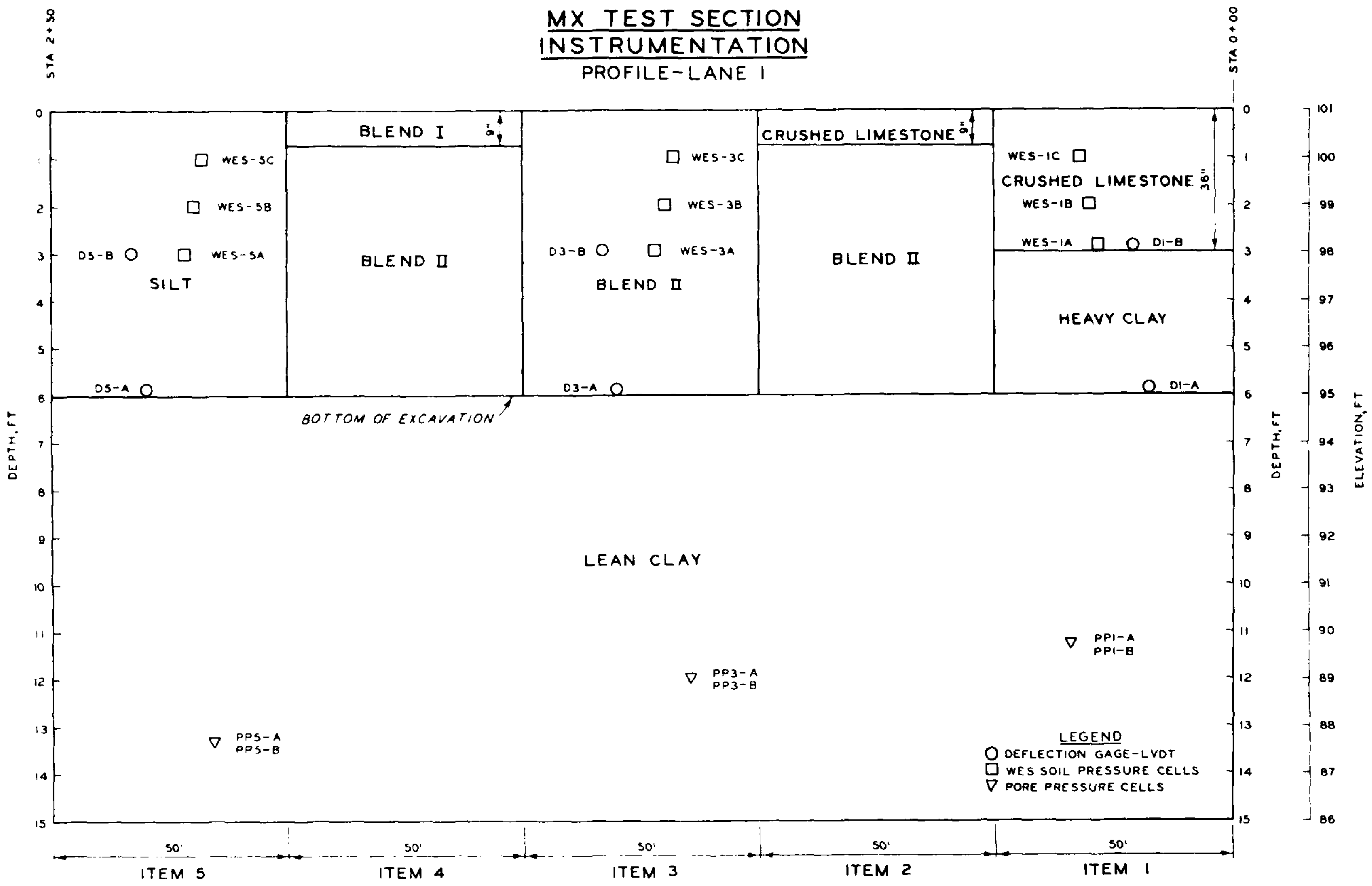


Figure A20. Profile of traffic lane 1 with instrumentation

Pore pressure cells

35. The Bell and Howell Consolidated Electrodynamics Corporation (CEC) type 4-312 transducer is a small single diaphragm hermetically sealed fluid pressure cell manufactured by the CEC of Pasadena, Calif. In this study, the CEC cell (shown in Photo A3) was mounted in a WES porous-stone soil exclusion housing. Six cells (two per item) were installed in the three items at depths of 11 to 13 ft. The pore pressure cells were rated at 25 and 50 psi.

Cap and Pins

36. Cap and pin devices for measuring surface deflections were included in Items 3, 4, and 5 of traffic lane 1 and Items 2, 3, 4, and 5 of traffic lane 3. These gages consisted of 1/4-in. steel rods and 2-in.-diam stainless steel caps as shown in Photo A4. The caps rested on top of the pins but were not attached in any way. The cap and pins were driven into the soil so that the cap was flush with the surface. Rod and level readings determined the initial elevation of both the cap and pin. The total, permanent, and elastic deflections that occurred at the surface were determined from changes in elevation due to load application. The length of the pin determined the reference from which the total deflection was measured. As traffic was applied, both the cap and pin moved down. The cap was free to rebound, and the change in elevation from its original position gave the permanent deflection. The pin would not rebound unless deflection occurred in the soil beneath the pin. The change in elevation of the pin gave the total deflection. The difference between the total and permanent deflection was the amount of elastic deformation that took place at the surface. Twelve cap and pin devices were installed in Items 3, 4, and 5 of lane 1. Both 4- and 6-ft pins were used (two of each per item). Seven cap and pin devices were installed in Items 2, 3, 4, and 5 of lane 3. Four-foot pins were used throughout.

Buried Pipes

37. Reinforced concrete (Class IV) and corrugated steel (16 gage) pipes were included in Item 2, lanes 1 and 2. Figure A3 shows the locations at which 12-, 18-, and 24-in.-diam pipes were installed. The profile in Figure A4 gives the depth of each pipe.

PART III: CONSTRUCTION

38. The test section was constructed during the period March 1980 through April 1981. All work was accomplished by WES personnel except the batching of the lean mix concrete. A description of the compaction equipment used and details of the construction operations are given in the paragraphs below.

Compaction Equipment

39. Several types of compaction equipment were required to obtain the design strengths for the variety of materials placed in the test section. Details for each are discussed below.

Self-propelled rubber-tired roller

40. The subgrade, portions of the crushed limestone and cement-stabilized materials, the blended soils that were placed at optimum moisture content, and the bituminous surface treatments were compacted with the self-propelled rubber-tired roller shown in Photo A5. The weight of the roller during construction was 25 tons with a tire pressure of 60 psi. The tire configuration was such that one pass across an item (moving over one tire print at a time) equaled seven coverages.

Rubber-tired Bross Roller

41. Some of the crushed limestone and cement-stabilized materials were compacted with the 50-ton rubber-tired roller shown in Photo A6. The 50-ton load was initially carried by four tires at a pressure of 65 psi. One of the original tires blew out on 7 January 1981. It was necessary to replace all four tires with slightly smaller ones at 100 psi. The tire configuration and spacing were such that one pass across an item (moving over one tire print at a time) corresponded to four coverages.

Vibratory steel wheeled roller

42. Portions of the crushed limestone and cement-stabilized materials were compacted with the vibratory steel wheeled roller shown in Photo A7. The static weight of the roller is 23,150 lb with the drum weighing 12,495 lb. Maximum dynamic force output is 36,000 lb at 2,400 vpm. This roller was also used to smooth the surface of some items after compaction or fine grading.

Sheepsfoot roller

43. The silt in Item 5 was compacted with the dual-drum sheepsfoot roller shown in Photo A8.

Bulldozers

44. D-4 and D-6 bulldozers were utilized for compaction of Blends I and II in items where a design CBR of 15 was specified. In this report, one trip across an item (moving over one track at a time) will be referred to as a pass.

Excavation

45. The test section located in Hangar No. 4 was surveyed and staked out on 18 March 1980, and excavation was begun the same day. The excavation area was 250 ft long by 50 ft wide by 6 ft deep with necessary ramps at each end. The D-6 bulldozer and a front-end loader were used to remove 6 ft of lean clay from the test section (Photo A9). Excavation was completed at an elevation of 95.0 ft (Photo A10). A subsurface drainage system and sump pump were required to dry the subgrade enough for compaction. The water table in this area was approximately 2 to 3 ft below the bottom of the excavation. After several days of drying, the subgrade was processed to a depth of 8 to 10 in. with a pulvimixer and compacted to a CBR of 21 (surface) with the self-propelled rubber-tired roller and the dual-drum sheepsfoot. CBR, moisture content, and density measurements were made on the subgrade after compaction. Nondestructive tests were performed with the WES 16-kip vibrator and the Road Rater 2008.

Subsurface Drainage System

46. A french drain (Photo A11) was provided around the perimeter of the test section. A 2-ft-wide trench was excavated to a depth of 4 ft below the bottom of the test section (el 91.0 ft) and backfilled with 12 in. of washed gravel and a layer of sand followed by Blend II. A 4-in. perforated pipe was placed at middepth in the washed gravel to aid in drainage. The french drain was constructed to discharge on the west side f the test section at sta 1+05, and a sump pump was installed to remove the water from the test area. Approximately 1,800 gal of water per day were pumped from the test section during the early days of operation.

Item 1

Lane 1

47. Heavy clay, el 95.0 to 98.0 ft. The heavy clay was preprocessed (Photo A12) to a water content equal to that desired for compaction (CBR = 3-5), hauled in a dump truck to the test area, and spread with a bulldozer. The 3-ft layer of CH was constructed in six lifts. Lifts 1 through 5 were approximately 6 to 7 in. thick. The dates of completion of each lift were (a) first lift, 9 August 1980; (b) second lift, 13 August 1980; (c) third lift, 27 August 1980; (d) fourth lift, 30 August 1980; and (e) fifth lift, 5 September 1980. A 5-in. final lift was constructed to level up the item and fill in some low areas on 6 September 1980, and the CH was fine graded to an elevation of 98.0 ft on 8 September 1980. Compaction of the heavy clay was accomplished by two passes of the self-propelled rubber-tired roller on each lift. The surface of each lift was scarified to ensure a good bond between layers and watered with a fire hose to avoid loss of moisture. CBR, moisture content, and density measurements were made on lifts 1 through 5 to ensure that desired strengths were obtained. Nondestructive tests were performed on lifts 1 through 5 with the WES 16-kip vibrator and the Road Rater 2008.

48. Crushed limestone, el 98.0 to 101.0 ft. The crushed limestone was prewet to near saturation, hauled in a dump truck to the test area, and spread with a bulldozer. The 3-ft depth of limestone was constructed in five lifts that were approximately 6 to 8 in. thick. The surface of each lift was scarified to aid in bonding between layers. The first lift was placed on 8-9 September 1980 and compacted on 10 September 1980 with three passes of the vibratory steel wheeled roller. The second lift was placed and compacted with two passes of the self-propelled rubber-tired roller on 16 September 1980. The third lift, placed on 22-23 September 1980, was compacted by four passes of the Bross Roller (60,000 lb, 65 psi). The fourth lift was placed and compacted by two passes of the Bross Roller (60,000 lb, 65 psi). The final lift was placed on 15 January 1981. Compaction was accomplished by two passes of the self-propelled rubber-tired roller on 15 January 1981 and by eight passes of the Bross Roller (100,000 lb, 100 psi) on 20 January 1981. The crushed limestone was fine graded to an elevation of 101.0 ft on 22 January 1981, and two passes of the steel wheeled roller were applied to smooth the surface. CBR, moisture content, and density measurements were performed on each lift.

Nondestructive tests were performed on each lift with both the WES 16-kip vibrator and the Road Rater 2008. Tests were performed with the Falling Weight Deflectometer on lifts 4 and 5.

Lane 2

49. Heavy clay, el 95.0 to 98.58 ft. The heavy clay was placed in six lifts that were approximately 6 to 8 in. thick. Construction procedures were the same as for lane 1 (el 95.0 to 98.0 ft). The lifts were completed as follows: (a) first lift, 9 August 1980; (b) second lift, 13 August 1980; (c) third lift, 27 August 1980; (d) fourth lift, 30 August 1980; (e) fifth lift, 5 September 1980; and (f) sixth lift, 9 September 1980. Compaction of each lift was accomplished by two passes of the self-propelled rubber-tired roller. Each lift was scarified to aid in bonding between layers. CBR, moisture content, and density measurements were made after each lift. Nondestructive tests were performed on each lift with the WES 16-kip vibrator and the Road Rater 2008.

50. Cement stabilized Blend I, el 98.58 to 101.0 ft. The Blend I material was spread in an open area near the test section and mixed with 7 percent cement (portland, Type I). Mixing was accomplished with a pulvimixer (Photos A13 and A14). The as-mixed moisture content of Blend I was 8 percent. Immediately after mixing, the material was hauled to the test area in dump trucks and spread with a bulldozer. Construction consisted of five lifts that were each approximately 6 in. thick. Lifts 1 and 2 were placed on 18 September 1980, and compaction consisted of four passes of the vibratory steel wheeled roller on each lift. The third lift, placed on 21 October 1980, was compacted by two passes of the Bross Roller (60,000 lb, 65 psi). The fourth lift was placed on 12 November 1980, and compaction consisted of two passes of the Bross Roller (100,000 lb, 100 psi). The final lift was placed on 21 January 1981, and compaction was accomplished by two passes of the self-propelled rubber-tired roller. The cement stabilized Blend I was fine graded to an elevation of 101.0 ft on 21 January 1981, and two passes of the steel wheeled roller were applied to smooth the surface. CBR, moisture content, and density measurements were made, and nondestructive tests were performed with the WES 16-kip vibrator and the Road Rater 2008 after lifts 2 through 5. Tests were performed with the Falling Weight Deflectometer after lifts 4 and 5.

Lane 3

51. Heavy clay, el 95.0 to 98.58 ft. Construction procedures and dates are the same as lane 2 (el 95.0 to 98.58 ft). CBR, moisture content, and density measurements were made, and nondestructive tests were performed with the WES 16-kip vibrator and the Road Rater 2008 after each lift.

52. Crushed limestone, el 98.58 to 101.0 ft. Construction procedures were the same as lane 1 (el 98.0 to 101.0 ft). The limestone was placed in four lifts that were approximately 7 to 8 in. thick. Lifts 1 and 2 were placed on 15 October 1980 and compacted by two passes of the self-propelled rubber-tired roller. The third lift was placed and compacted by two passes of the Bross Roller (60,000 lb, 65 psi). The fourth lift was completed on 12 January 1981 and compacted with two passes of the Bross Roller (100,000 lb, 100 psi). Six passes of the Bross Roller (small tires) were applied on 20 January 1981. CBR, moisture content, and density measurements were made after each lift. Nondestructive tests were performed on lifts 1 through 4 with the WES 16-kip vibrator and the Road Rater 2008. Tests were performed with the Falling Weight Deflectometer on lifts 3 and 4. The crushed limestone was fine graded to an elevation of 101.0 ft on 22 January 1981.

Item 2

Lane 1

53. Blend II, el 95.0 to 100.25 ft. The Blend II material was preprocessed to a water content equal to that desired for placement, hauled in a dump truck to the test area, and spread with a bulldozer (Photo A15). The 5.25-ft depth of Blend II was constructed in eight lifts that were approximately 7 to 8 in. thick. The first lift was placed at a moisture content of 8 to 9 percent on 8 August 1980 and compacted on 9 August 1980 with two passes of the self-propelled rubber-tired roller. A second lift was placed on 12 August 1980 at a moisture content of 8 to 9 percent. Two passes of the self-propelled rubber-tired roller resulted in strengths that exceeded design limitations. This material was removed from the test section, processed to a moisture content ≤ 4 percent, and placed in the test section on 21 August 1980. Strengths obtained by rolling with two passes of the self-propelled roller were still too high. The second lift of Blend II was then pulvimixed and rolled with the self-propelled roller only one-half full of water

(weight $\cong$ 35,000 lb). Strengths were still greater than the design value (CBR = 15). The material was again pulvimixed, and compaction was limited to one pass of a D-4 bulldozer on 23 August 1980. All remaining lifts were put in at a moisture content $\leq$4 percent. The third lift was placed on 26 August 1980 and rolled with one pass of the self-propelled rubber-tired roller (empty). This attempt to obtain at least a minimal amount of compaction and keep the strength down was unsuccessful. The third lift was pulvimixed and compacted by one pass of a D-6 bulldozer on 27 August 1980. Lifts 4 through 8 were each compacted by one pass of the D-6 bulldozer, and the completion dates for those lifts were (a) fourth lift, 29 August 1980; (b) fifth lift, 5 September 1980; (c) sixth lift, 9 September 1980; (d) seventh lift, 16 September 1980; and (e) eighth lift, 24 September 1980. CBR, moisture content, and density measurements were performed after each lift. Nondestructive tests were performed on all lifts with both the WES 16-kip vibrator and the Road Rater 2008. The Blend II material was fine graded to an elevation of 100.25 ft on 20 October 1980.

54. Crushed limestone, el 100.25 to 101.0 ft. The crushed limestone was prewet to near saturation, hauled in a dump truck to the test area, and spread with a bulldozer. The 0.75-ft layer was constructed in two lifts that were approximately 6 in. thick. The first lift was placed on 10 November 1980. The surface was wet, and two passes of the self-propelled rubber-tired roller were applied on 13 November 1980. The final lift was placed on 15 January 1981, and four passes of the self-propelled rubber-tired roller were applied. The crushed limestone was then rolled to a total of 12 passes with the self-propelled rubber-tired roller on 16 January 1981. CBR, moisture content, and density measurements were performed on both lifts. Nondestructive tests were performed on each lift with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer. The crushed limestone was fine graded to an elevation of 101.0 ft on 22 January 1981.

Lane 2

55. Blend II, el 95.0 to 100.0 ft. The 5-ft depth of Blend II was constructed in eight lifts that were approximately 7 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift were the same as for lane 1 (el 95.0 to 100.0 ft). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on each lift with the WES 16-kip vibrator and the Road Rater 2008. The

Blend II material was fine graded to an elevation of 100.0 ft on 20 October 1980.

56. Cement stabilized Blend II, el 100.0 to 101.0 ft. The 1-ft depth of cement stabilized Blend II was constructed in two 6-in. lifts. Twenty-five cubic yards of Blend II (enough material for a lift in both Items 2 and 5) were spread in an open area near the test section for the first lift on 13 November 1980. The moisture content of this material was 7 to 8 percent. Eighty bags of portland cement (Type 1) were mixed with Blend II to obtain a cement content of approximately 7 percent. The material was mixed thoroughly with a pulvimixer, hauled to the test area in a dump truck, and spread with a bulldozer. Four passes were applied with the self-propelled rubber-tired roller for compaction on 13 November 1980. The second and final lift of cement-stabilized Blend II material was mixed, placed, and compacted with four passes of the self-propelled rubber-tired roller on 21 January 1981. Immediately after compaction, the material was fine graded to an elevation of 101.0 ft. Two passes of the steel wheeled roller were applied to smooth the surface. CBR, moisture content, and density measurements were performed on both lifts. Nondestructive tests were performed with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer.

Lane 3

57. Blend II, el 95.0 to 100.0 ft. The 5-ft depth of Blend II material was constructed in eight lifts that were approximately 7 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift are the same as lane 1 (el 95.0 to 100.0 ft). CBR, moisture content, and density measurements were performed on each lift. Nondestructive tests were also performed with the WES 16-kip vibrator and the Road Rater 2008. The Blend II material was fine graded to an elevation of 100.0 ft on 20 October 1980.

58. Crushed limestone, el 100.0 to 101.0 ft. The crushed limestone was prewet to near saturation, hauled to the test area in a dump truck, and spread with a bulldozer. A 1-ft layer of this material was constructed in two lifts. The first lift was placed on 10 November 1980 and compacted on 13 November 1980 with four passes of the self-propelled rubber-tired roller. The second lift was placed on 12 January 1981 and compacted with four passes of the Bross Roller (small tires). Another six passes were applied on 20 January 1981. CBR, moisture content, and density measurements were made on both lifts.

Nondestructive tests were performed with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer. The crushed limestone was fine graded to an elevation of 101.0 ft on 22 January 1981.

Item 3

Lane 1

59. The 6-ft layer of Blend II was constructed in 10 lifts that were approximately 7 to 8 in. thick (Blend II, el 95.0 to 101.0 ft). Construction procedures, compactive efforts, and dates of completion for lifts 1 through 8 were the same as for Item 2, lane 1 (el 95.0 to 100.25 ft). The ninth lift was placed on 7 November 1980 and compacted with one pass of a D-6 bulldozer on 10 November 1980. The tenth and final lift was placed and compacted with one pass of a D-6 bulldozer on 7 January 1981. Lifts 9 and 10 were placed at moisture contents of ≤ 4 percent. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on lifts 1 through 10 with the WES 16-kip vibrator and the Road Rater 2008. Tests were performed on lifts 9 and 10 with the Falling Weight Deflectometer.

Lane 2

60. Blend II, el 95.0 to 100.0 ft. The 5-ft layer of Blend II was constructed in eight lifts that were approximately 6 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift are the same as for Item 2, lane 1 (el 95.0 to 100.25 ft). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008.

61. Lean mix concrete, el 100.0 to 101.0 ft. Forms were built and placed for the lean mix concrete on 6-7 November 1980 (Photo A16). Blend II at a moisture content of 8 to 10 percent was hauled to a local batch plant for batching on 9 December 1980. The following batch proportions were given to the contractor: per cubic yard, 400 lb cement (Type 1), 2,925 lb Blend II, and 42 gal water. The Blend II (at ω = 10 percent) was too wet to go through the batch plant. Therefore, Blend II at a moisture content of 4 to 6 percent was hauled to the batch plant 17 December 1980. The same proportions were given to the contractor and the material was batched. It was then transit-mixed and delivered to the test area (a distance of about 5 miles) in

ready-mix trucks. The concrete was too stiff and would not discharge from the trucks at this low slump. An undetermined amount of water was added on site as necesary to get satisfactory discharge. Three and one-quarter weight trucks were required, and slumps ranged from 4-1/2 to 7 in.

62. After the concrete had been discharged into the forms, it was struck off and screeded with a small gasoline powered screed (Photo A17). It was then consolidated by means of internal vibration. This was followed by transverse floating, and then the concrete was given a final broom finish.

63. Transverse weakened-plane contraction joints were provided on 12.5-ft spacings. The weakened plane was formed by fiberboard inserts installed in the plastic concrete surface during concrete placement.

Lane 3

64. Blend II, el 95.0 to 101.0 ft. The 6-ft layer of Blend II was constructed in 10 lifts that were approximately 7 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for lifts 1 through 8 were the same as for Item 2, lane 1 (el 95.0 to 100.25 ft). The ninth lift was placed at a moisture content of ≤ 4 percent and compacted on 10 November 1980. Compaction was accomplished by one pass of the D-4 bulldozer. The tenth and final lift was placed on 9 January 1981 at the optimum moisture content (approximately 7 percent). It was compacted on 9 January 1981 with four passes of the self-propelled rubber-tired roller. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on lifts 1 through 10 with the WES 16-kip vibrator and the Road Rater 2008. Tests were performed on lifts 9 and 10 with the Falling Weight Deflectometer. The Blend II was fine graded to an elevation of 101.0 ft on 20 January 1981.

65. Double-bituminous surface treatment. Lane 3 surface was primed with an MC-70 asphalt on 6 March 1981 (Photo A18). The MC-70 was applied with a hand held spray bar at a rate of 0.3 gal/sq yd. A light mist of water was applied to Blend II before spraying to break the surface tension. An RS-3K emulsified asphalt was chosen for the surface treatment. Emulsified asphalts require very little heating for pumping in and out of storage containers or for application in the field.

a. First treatment. The first portion of the double-bituminous surface treatment was constructed on 24 March 1981. The item was misted with water to break the surface tension before application of the RS-3K emulsion. The emulsion was applied at a

rate of 0.42 gal/sq yd with a hand held spray bar, and crushed limestone (1/2 in.) was applied immediately after application of the RS-3K to ensure proper coating (Photo A19). The item was rolled with the self-propelled rubber-tired roller to seat the aggregate particles in the binder.

b. Second treatment. The second layer of the double surface treatment was constructed on 30 March 1981. The surface was swept clear of loose aggregate with hand brooms. RS-3K emulsion was applied with the hand held spray bar at a rate of 0.33 gal/sq yd. Crushed limestone (1/4 in.) was applied within minutes of application and rolled immediately with the self-propelled rubber-tired roller. The completed DBST is shown in Photo A20, and a close-up is provided in Photo A21.

Item 4

Lane 1

66. Blend II, el 95.0 to 100.25 ft. The 5.25-ft layer of Blend II was constructed in eight lifts that were approximately 7 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift were the same as for Item 2, lane 1 (el 95.0 to 100.25 ft). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008. The Blend II was fine graded to an elevation of 100.25 ft on 20 October 1980.

67. Blend I, el 100.25 to 101.0 ft. The 0.75-ft layer of Blend I was constructed in two lifts that were approximately 5 in. thick. This material was placed at a moisture content ≤ 4 percent. The first lift was placed on 7 November 1980 and compacted on 10 November 1980 with one pass of a D-6 bulldozer. The second lift was placed and compacted with one pass of a D-6 bulldozer on 7 January 1981. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on both lifts with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer.

Lane 2

68. Blend II, el 95.0 to 100.0 ft. The 5-ft layer of Blend II was constructed in eight lifts that were approximately 6 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift were the same as Item 2, lane 1 (el 95.0 to 100.25 ft). CBR, moisture content, and density measurements were made on each lift. Nondestructive

tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008. The Blend II was fine graded to an elevation of 100.0 ft on 20 October 1980.

69. Cement stabilized Blend I, el 100.0 to 101.0 ft. The 1-ft layer of cement stabilized Blend I was constructed in two lifts. Blend I material at a moisture content of 8 to 9 percent was spread in an open area near the test section and mixed with portland cement, Type 1 (33 bags per 5-in. lift). After mixing with a pulvimixer, the material was hauled in a dump truck to the test area and spread with a bulldozer. The first lift was placed on 10 November 1980 and compacted with four passes of the self-propelled rubber-tired roller. The second lift was placed on 16 January 1981 and compacted with four passes of the self-propelled rubber-tired roller. The cement stabilized Blend I was fine graded to an elevation of 101.0 ft on 16 January 1981. Two passes of the steel wheeled roller were then applied to smooth the surface. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer.

Lane 3

70. Blend II, el 95.0 to 100.0 ft. The 5-ft depth of Blend II was constructed in eight lifts that were approximately 6 to 8 in. thick. Construction procedures, compactive efforts, and dates of completion for each lift were the same as for Item 2, lane 1 (el 95.0 to 100.25 ft). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008. The Blend II was fine graded to an elevation of 100.0 ft on 20 October 1980.

71. Blend I, el 100.0 to 101.0 ft. The 1-ft layer of Blend I was constructed in two lifts. The material was placed at a moisture content of 8 to 9 percent. The first lift was placed on 10 November 1980 and compacted with two passes of the self-propelled rubber-tired roller. The second lift was placed on 9 January 1981 and compacted with four passes of the self-propelled rubber-tired roller. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on each lift with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer. The Blend I was fine graded to an elevation of 101.0 ft on 20 January 1981.

72. Single-bituminous surface treatment. Blend I surface was primed on 6 March 1981 with an MC-70 asphalt applied at a rate of 0.3 gal/sq yd. The Blend I material was misted with water to break the surface tension, and application of the MC-70 was accomplished with a hand held spray bar.

73. The surface treatment was constructed on 24 March 1981. The item was again misted with water to break surface tension before applying the RS-3K emulsion. A hand held spray bar was used to apply the emulsion at a rate of 0.42 gal/sq yd. A crushed stone aggregate (1/2 in.) was applied within minutes of application and rolled immediately with the self-propelled rubber-tired roller.

Item 5

Lane 1

74. The silt was preprocessed to a moisture content of approximately 17 percent (Silt, el 95.0 to 101.0 ft), hauled to the test area in a dump truck, and spread with a bulldozer. The 6-ft layer was constructed in 10 lifts that were approximately 7 to 8 in. thick. The first lift was placed on 8 August 1980. The silt pumped and broke up under the action of the Bross Roller on 9 August 1980. The material was pulvimixed and compacted with one pass of the self-propelled rubber-tired roller. Some pumping was observed under this load also. Lifts 2 through 8 were compacted with six passes of a sheepsfoot roller, and the dates of completion for each lift were (a) second lift, 11 August 1980; (b) third lift, 26 August 1980; (c) fourth lift, 29 August 1980; (d) fifth lift, 5 September 1980; (e) sixth lift, 9 September 1980; (f) seventh lift, 16 September 1980; and (g) eighth lift, 24 September 1980. The ninth lift was placed on 22 October 1980. An effort was made to roll it on 23 October 1980 with the self-propelled rubber-tired roller. The silt broke up and was pulvimixed. Six passes of the sheepsfoot roller were applied for compaction. The tenth lift was placed on 8 January 1981 and compacted with six passes of the sheepsfoot roller. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on lifts 1 through 10 with the WES 16-kip vibrator and the Road Rater 2008. Tests were performed on lifts 9 and 10 with the Falling Weight Deflectometer.

Lane 2

75. Silt, el 95.0 to 99.67 ft. The 4.67-ft layer of silt was constructed in eight lifts that were approximately 7 to 8 in. thick. Construction procedures, compactive efforts, and completion dates for each lift were the same as for Item 5, lane 1 (lifts 1 through 8). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed on each lift with the WES 16-kip vibrator and the Road Rater 2008. The silt was fine graded to an elevation of 99.67 ft on 27 September 1980.

76. Cement stabilized Blend II, el 99.67 to 101.0 ft. The 1.3-ft layer of cement stabilized Blend II was constructed in three lifts. Blend II at a moisture content of 7 to 8 percent was spread in an open area near the test section and mixed with portland cement, Type 1 (40 bags per 5-in. lift). After mixing with a pulvimixer, the material was hauled to the test section in a dump truck and spread with a bulldozer. The first lift was placed on 6 October 1980 and compacted with eight passes of the self-propelled rubber-tired roller. The second lift was placed on 13 November 1980 and compacted with eight passes of the Bross Roller. The third lift was placed on 16 January 1981 and compacted with four passes of the self-propelled rubber-tired roller. The cement stabilized Blend II was fine graded to an elevation of 101.0 ft on 16 January 1981. Two passes of the steel wheeled roller were applied to smooth the surface. CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008. Tests were performed on lifts 2 and 3 with the Falling Weight Deflectometer.

Lane 3

77. Silt, el 95.0 to 99.67 ft. The 4.67-ft layer of silt was constructed in eight lifts. Construction procedures, compactive efforts, and dates of completion for each lift were the same as for Item 5, lane 1 (lifts 1 through 8). CBR, moisture content, and density measurements were made on each lift. Nondestructive tests were performed after each lift with the WES 16-kip vibrator and the Road Rater 2008. The silt was fine graded to an elevation of 99.67 ft on 24 September 1980.

78. Blend II, el 99.67 to 101.0 ft. The 1.3-ft layer of Blend II was constructed in two lifts at a moisture content of 7 to 8 percent. The first lift was placed on 14 October 1980 and compacted with one pass of the

self-propelled rubber-tired roller on 15 October 1980. The second lift was placed on 22 October 1980 and compacted with one pass of the self-propelled rubber-tired roller on 23 October 1980. The upper 3 to 4 in. of Blend II were pulvimixed on 9 January 1981, and material was added in some low spots and recompacted with four passes of the self-propelled rubber-tired roller. The Blend II was fine graded on 20 January 1981 to an elevation of 101.0 ft.

79. Single-bituminous surface treatment. Blend II surface was primed with an MC-70 asphalt on 6 March 1981. The MC-70 was applied at a rate of 0.3 gal/sq yd with a hand held spray bar. The item was misted with water before application to break the surface tension.

80. The surface treatment was constructed on 24 March 1981. RS-3K emulsion was applied at a rate of 0.42 gal/sq yd with a hand held spray bar. A crushed stone aggregate (1/2 in.) was applied within minutes of application and rolled immediately with the self-propelled rubber-tired roller.

PART IV: INSTALLATION OF INSTRUMENTATION AND PIPES

Soil Instrumentation

Electronic gages

81. Deflection gages, soil pressure cells, and pore pressure cells in Items 1, 3, and 5, lane 1, were installed during the construction operations at the locations indicated in Table A4. A summary of installation procedures is discussed below.

82. LVDT's. The general procedure for deflection gage (LVDT) installation was to overbuild a minimum of 8 in. above the desired elevation and excavate a 2- by 2-ft hole to the gage location. A 4-in.-diam hole was then augered to 10 ft below the bottom of the test section using the trailer-mounted drill rig shown in Photo A22. A 1/2-in. steel rod with a plate attached to the bottom was then inserted into the drill hole and cased with 1-1/2-in. plastic (PVC) pipe as shown in Photo A23. The rod served as a reference rod for the LVDT. Expanding type anchors were used to prevent movement of the reference rod for the 6-ft gages, and the reference rod for the 3-ft gages was set on 4 to 6 in. of crushed stone and cemented in place. The holes were backfilled with Blend II and tamped. The LVDT core was then attached to the top of the reference rod which was drilled and tapped prior to installation. A short piece of flexible hose was attached at the top of the PVC pipe to break the rigidity. The reference rod with core attached is shown in Photo A24. The deflection gage was then positioned over and attached to the reference rod. A thin steel plate (1 by 1 ft square) was used to provide a stable surface for the top of the gage to rest upon. Sand was placed beneath the plate to level the gage. Elevations were obtained for both the top of the reference rod and the top of the gage. An LVDT gage is shown as installed in Photo A25.

83. WES soil pressure cells. Each item was overbuilt a minimum of 6 in. before installation of WES soil pressure cells. The general procedure was to excavate a 2- by 2-ft square hole to the desired elevation. The cells were then seated on a thin layer of sand and leveled. An elevation was obtained for the upper surface of the cell. A pressure cell is shown as installed in Photo A26. Backfilling around and directly over the cells was

accomplished by hand tampers for a minimum depth of 6 in. Normal compaction procedures were then continued.

84. <u>Pore water pressure cells.</u> The procedure for installing of pore pressure cells was to auger a 6-in.-diam hole to the desired elevation. A 4-in. layer of sand was placed in the bottom of the hole, and two pore pressure cells (a 25 psi and a 50 psi) were set on the sand. Sand was then used to backfill around and over the cells to the bottom of the test section. The remainder of the backfill matched the profile for the particular item.

85. All cable leads from the deflection gages, soil pressure cells, and pore pressure cells were carried to a common exit point on the east side of the test section at sta 1+25 and trenched to an instrumentation trailer.

<u>Cap and pin</u>

86. Prior to traffic, cap and pins were installed in lanes 1 and 3 at the following stations:

Lane 1			Lane 3	
1+11	1+61	2+11	0+88	1+62
1+12	1+62	2+12	1+12	1+88
1+38	1+88	2+38	1+38	2+12
1+39	1+89	2+39		2+38

Pin lengths of 4 and 6 ft were used. The procedure for installing these deflection measuring devices was as follows: First, the trailer-mounted drill rig was used to push a 3/4-in.-diam hole to a depth of 3 ft for the 4-ft pins or 5 ft for the 6-ft pins. The 1/4-in.-diam pin was placed in the drill hole and hammered down near the surface. The cap was then set on top of the pin and both were hammered down until the cap was flush with the surface. Cap and pin installation is shown in Photo A27.

87. Surface disturbance resulting from pushing the 3/4-in. rod into the crushed limestone items was such that the cap could not be driven flush and was therefore very unstable. Difficulty was also encountered when driving the 1/4-in. pins into the granular material. Only one gage was installed in the crushed limestone. Efforts were discontinued after several unsuccessful attempts to install a second gage.

88. Elevations were obtained for the top of the pin and the cap.

Pipe Installation

89. Item 2 was constructed to elevations of 100.25 and 100.0 ft in lanes 1 and 2, respectively. Backhoe trenches were excavated as shown in Figures A3 and A4. A 3-in. layer of crushed gravel was placed in the bottom of each trench and compacted with the mechanical whacker shown in Photo A28. The reinforced concrete and corrugated steel pipes were placed in the trenches with the aid of a small crane. Two to five inches of crushed gravel were then hand-tamped around the pipes as shown in Photos A29 and A30. The remainder of the trench was backfilled with Blend II in 6- to 9-in. layers. This material was hand-tamped to the top of the pipes, and the mechanical whacker was used for compacting the backfill above the pipes.

PART V: TESTING AND SAMPLING DURING CONSTRUCTION AND JUST PRIOR TO THE APPLICATION OF TRAFFIC

Water Content, Density, and CBR

90. Water content, density, and CBR determinations were made at the bottom of the excavation and on the surface of each lift of material placed in the test section. Water contents and densities were determined as described in the American Society for Testing and Materials (ASTM) Test Methods: D 2922-81 and D 3017-78 (ASTM 1982c, 1982f) with a Troxler nuclear moisture-density gage as shown in Photo A31. Densities of the lean clay, fat clay, silt, and blended soils were determined using direct transmission (Method B, probe at 6-in. depth). Densities of the crushed limestone and cement-stabilized materials were obtained using backscatter (Method A). In-place strength of each layer was evaluated on the basis of the CBR. CBR is a measure of the resistance of soils to the penetration of a standard 3-sq-in. piston; it is determined by comparing the bearing value obtained from a penetration-type shear test with a standard bearing value obtained on crushed rock (average value of tests and a large number of samples). The standard results are taken as 100 percent, and values obtained from other tests are expressed as percentages of standard. The field CBR test was performed in accordance with Military Standard 621A, Method 101 (Department of Defense 1964). Field CBR equipment used is shown in Photo A32. The as-constructed data are presented in Table A5.

91. CBR values shown are an average of at least three measurements. Water contents and densities are averages of at least two values.

Pretraffic Test Pits

92. Just prior to the application of traffic, test pits were excavated to a depth of 6 ft in Items 1, 3, 4, and 5 of lane 1. Water content, density, and CBR determinations were made at the surface and at depths of 6, 12, 24, 36, 48, 60, and 72 in. in each pit. Water contents and densities were determined with a Troxler nuclear gage (as during construction) and also by conventional methods. The water (rubber) balloon method was used to evaluate the in-place density of all granular layers. This method is described in

ASTM D 2167-66 (ASTM 1982d). Densities of the silt, lean clay, and fat clay materials were obtained using the drive cylinder method described in Military Standard 621A, Method 102 (Department of Defense 1964). Water contents were determined by Military Standard 621A, Method 105. Data obtained from the pre-traffic test pits are presented in Table A6.

Plate Bearing Tests

93. Modulus of soil reaction , k , values were determined from the plate bearing test prior to traffic on the surface of Items 1, 3, 4, and 5 in lane 1, Items 2 and 4 in lane 2, and Items 2 and 4 in lane 3. The plate bearing test is a bearing capacity test in which a known load is placed on a nest of circular plates (base diameter = 30 in.) and the resulting deflection is measured. The modulus of soil reaction, k , is defined as the ratio of the applied pressure in pounds per square inch to the average deflection measured at the 10-psi load increment. The procedures used in this test are described in Military Standard 621A, Method 104 (Department of Defense 1964). Results of the plate bearing tests are presented in Table A7. A view of a test setup is shown in Photo A33.

Concrete Samples

94. Samples of the lean mix concrete in Item 3, lane 2, were taken from the concrete mixtures as they were discharged from the ready-mix trucks. Beams 6 by 6 by 36-in. and cylinders 6 in. in diameter by 12 in. high that were representative of the concrete placed in the item were prepared as described in ASTM C 31-69 (ASTM 1982g). The beams and cylinders were field cured in Hangar 4. Results of 21- and 28-day breaks were as follows:

Cylinders, Compressive Strength,* psi	Beams, Flexural Strength,** psi
21 Days	
960	205
1,060	200
1,080	
Average = 1,033	Average = 202

(Continued)

* Compressive strength determined as described in ASTM C 39-80 (ASTM 1982a).
** Flexural strengths determined as described in ASTM C 78-75 (ASTM 1982e).

Cylinders, Compressive Strength, psi	Beams, Flexural Strength, psi
28 Days	
1,130	210
1,020	210
1,070	Average = 210
Average = 1,073	

Cement Stabilization Samples

95. Samples were taken from cement stabilized Blends I and II just prior to the placement of these materials in the test section. The design cement content for the stabilized soils was 7 percent. Specimens measuring 2.8 in. in diameter and 5.6 in. in length were molded and cured in a humid room following the procedures outlined in ASTM Part 19, D 1632-63 (ASTM 1982h). Compressive strengths were determined as described in ASTM Part 19, D 1633-63 (ASTM 1982b). Results of 7-, 14-, and 21-day breaks were as follows:

Material	w percent	Compressive Strength psi 7	14	21
Blend I	7.3	355	355	415
Blend I	9.7	510	595	715
Blend II	5.4	525	665	665
Blend II	7.3	540	595	495

Nondestructive Testing

96. Nondestructive tests (NDT) were performed at the bottom of the excavation and on the surface of each lift of material after it was placed and compacted in the test section. Tests were performed with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer. The Falling Weight Deflectometer was not available during the early stages of construction, and data were obtained on only the final two lifts. Results of NDT during construction are tabulated in Tables A8 and A9. Each machine is described below.

WES 16-kip vibrator

97. The WES 16-kip vibrator shown in Photo A34 operates electrohydraulically and is housed in a 36-ft semitrailer that contains supporting power supplies and automatic data recording systems. The vibrator mass assembly consists of an electrohydraulic actuator surrounded by a 16,000-lb lead-filled steel box. The actuator uses up to a 2-in. double-amplitude stroke to produce a vibratory load ranging from 0 to 30,000 lb peak to peak with a frequency range of 5 to 100 Hz for each load setting. Electric power is supplied by a 25-kw diesel-driven generator set. The hydraulic power unit is diesel-driven and has a pump that can deliver 38 gal/min at 3,000 psi.

98. Major items of electronic equipment are a set of three load cells which measure the load applied to the pavement; velocity transducers located at the center of the 18-in.-diam steel load plate and at points away from the load plate which are calibrated to measure deflections; a servomechanism which allows variation of frequency and load; an x-y recorder which produces load versus deflection curves; and a printer which provides data in digital form.

99. With this equipment, the vibratory load can be varied at constant frequencies, and load versus deflection can be plotted. These load-deflection data are used to compute the dynamic stiffness modulus (DSM) for a pavement structure. DSM is defined as the inverse slope of the load-deflection curve and has units of kips/inch. Frequency can be varied from approximately 5 to 100 Hz at constant force levels to produce the frequency response of the pavement structure. Also, at any selected load or frequency, a plot of the deflection basin shape can be drawn using data from the velocity transducers. The WES 16-kip vibrator can also be used to measure the velocity of shear waves propagated through various pavement layers. Wavelengths can be measured by manually moving a velocity transducer on the ground, observing the results on an oscilloscope, and manually recording the results. This procedure is repeated for different frequencies of loading, and the wave velocity is obtained by multiplying the frequency times the corresponding wavelengths.

100. Tests performed with the WES 16-kip vibrator at the bottom of the excavation and on each lift during construction included:

a. Load sweep at 15 Hz to obtain DSM.

b. Deflection basins at the following loads and frequencies:

Loads, lb	Frequency, Hz
2,500	15
5,000	20
10,000*	25
	30

* Deflection basins obtained at 10,000 lb on all items where that force was obtained. Where 10,000 lb was not reached, the basin was taken at the highest possible load.

Deflections were measured at the center of the load plate and at distances of 18, 40, and 60 in. from the center of the plate. Test results are tabulated in Table A8.

Road Rater 2008

101. The Model 2008 Road Rater shown in Photo A35 is a trailer-mounted, electrohydraulic vibrator. Also, like the WES 16-kip vibrator, the Model 2008 has a variable force and frequency capability. Furthermore, the Model 2008 has a digital control unit with a light-emitting diode display that by activating the proper switch, the force, frequency, or any one of four of the velocity sensors can be monitored during a test. Data for the Model 2008 are recorded on a thermal printer located in the control console. The test label number (0-9999), frequency, force, and four deflections are recorded either on the operator's command or during the automatic mode. Under the automatic mode, the operator activates the mode by pushing one switch. The mass is lowered to the pavement, the vibrator is turned on, vibrations are generated at a preselected force and frequency, data are recorded by the printer, and the vibrator is turned off and raised from the pavement.

102. The Model 2008 has a self-contained power supply. The gasoline engine supports the hydraulic and electrical systems of the device. The mass of the Model 2008 is 4,000 lb. The Model 2008 Road Rater has three load cells to monitor the force. The loads are summed for a total force output. Deflection is monitored by four velocity sensors. The first is located in the center of the 18-in.-diam load plate. The other sensors are spaced at intervals to the rear of the trailer from the first sensor. A DSM was computed from deflection data obtained at force levels of 5,000 and 7,000 lb as follows:

$$DSM_{RR} = \frac{Force_{7000} - Force_{5000} \text{ (kips)}}{Plate\ Defl_{7000} - Plate\ Defl_{5000} \text{ (inches)}}$$

103. Tests were performed at the bottom of the excavation and on each lift during construction at the following loads and corresponding frequencies:

Load, lb	Frequency, Hz
1,000	15
5,000	15
5,000	20
5,000	25
5,000	30
7,000	15

Deflections were measured at the center of the load plate and at distances of 18, 32, and 46 in. from the center of the plate. Test results are tabulated in Table A8.

Falling Weight Deflectometer

104. The Falling Weight Deflectometer shown in Photo A36 is a relatively new nondestructive testing device particularly to the United States. Basically, a mass weighing 440.92 lb is dropped on a set of rubber cushions, and the resulting force and deflection are measured by load cells and velocity transducers. The drop height can be varied from 0 to 15.7 in. to produce a force from 0 to 16,000 lb. The device is trailer-mounted having a total weight of 1,500 lb. The load is transmitted to the pavement through an 11.8-in.-diam aluminum plate. The signal conditioning equipment displays the resulting average contact pressure in kilopascals and the maximum peak displacement in micrometres. As many as three displacement sensors may be recorded.

105. Tests were performed on the final two lifts during construction. Drop heights of 1.44, 3.44, 6.50, and 14.94 in. were used. Deflections were measured at the center of the load plate and at distances of 18 and 36 in. from the center. A stiffness value was computed for each test as:

$$\text{FWD stiffness} = \frac{\text{Pressure}\ _{\text{@ Drop Height = 14.94 in.}}\ \text{(kPa)}}{\text{Plate Deflection (microns)}}$$

Test results are presented in Table A9.

Pipe Installment Data

106. Nuclear densities, nuclear moisture contents, and oven-dried moisture contents were obtained during the installation of each pipe in Item 2, lanes 1 and 2. Measurements were made in the bottom of each trench on each layer of crushed gravel and on each lift of Blend II backfilled around and above the pipes. The as-installed data are presented in Table A10.

PART VI: TESTING AND BEHAVIOR UNDER TRAFFIC

Test Conditions and Procedures

General

107. Traffic tests were performed on three separate lanes of the 50-ft-wide, 250-ft-long test section. Test cart, test lane, and traffic pattern information is discussed below.

Test cart

108. Single tandem traffic was applied to the test section with the test vehicle shown in Photos A37 and A38. This vehicle is a modified prime mover built by Marathon LeTourneau in Vicksburg, Miss. Modification for use on the MX test section consisted of removing the powered wheel from the left rear of the prime mover and placing it on the right side in front of the existing powered wheel. B-52 wheels were mounted in place of the removed wheel on the left side. The test wheels were shifted outward to approximately 5 ft beyond the front wheels on the prime mover. The wheels were equipped with smooth tires (shown in Photos A39 and A40) that measured 98 in. high by 40 in. wide with a 41-in. rim. Both of the test wheels were powered during the tests. The center-to-center spacing for the wheels was 9 ft which allowed for 1 ft of clearance between the tires.

109. The vehicle was loaded to result in a net weight of 125,000 lb. The tires were inflated to a pressure of 65 psi for all traffic testing. Data for the individual tires are as follows:

	Front Tire	Rear Tire	Average
Load, lb	68,750.0	57,000.0	62,875.0
Contact area, sq in.	757.7	796.2	776.9
Tire pressure, psi	65.0	65.0	65.0
Average contact pressure, psi	90.7	71.6	81.1

Test lanes

110. The layout in Figure A1 shows the location, width, and length of each traffic lane. Traffic was applied to a 40-in.-wide section at the center line of each traffic lane as indicated by the dashed lines in Figure A1.

Traffic pattern

111. All traffic was applied in a single line fashion assuming no wander. Each pass of a wheel was equivalent to a coverage, thus each load

cart pass equalled two coverages. Average speed of the vehicle was approximately 3 mph.

During Traffic Testing and Data Collection

112. Data collection and testing prior to traffic and at predetermined traffic intervals included surface measurements of water content, density, and CBR, and cross sections, center-line profile, photographs, instrumentation readings, and nondestructive tests. Traffic intervals for data collection were 40, 130, 326, 650, 1,300, and 2,600 passes in lanes 1, 2, and 3. Additional data were collected at 1,100 and 1,950 passes in lane 1. A description of the data obtained is provided below.

Water content, density, and CBR

113. Nuclear water contents and densities were determined and CBR's measured on the surface of each item in traffic lanes 1, 2, and 3 before any traffic was applied. Data from two locations within each item are tabulated in Table A11.

Cross sections

114. Cross sections were obtained at three locations within each item (midpoint and quarter point). Level readings were taken at 1-ft intervals outside the wheel path and at 0.5-ft intervals within the wheel path.

Center-line profile

115. A profile was obtained along the center line of the wheel path at each data collection interval. Level readings were taken at 1-ft intervals throughout the entire length of the test section.

Photographs

116. An overall photo of the traffic lane and an individual photo of each item were taken at each data collection interval.

Collection of Instrumentation Data

Soil instrumentation

117. Static load instrumentation tests were performed on the first pass and at each predetermined traffic interval. The front tire of the load cart was parked directly over each gage in succession and allowed to sit for approximately 4 min before the static load readings were taken. Dynamic load

tests were performed each time that traffic was halted for data collection and at other selected pass levels. The dynamic measurements were made with the load cart moving at its normal speed of approximately 3 mph. During trafficking of lane 1, all measuring instruments (located in Items 1, 3, and 5) were read daily before the start of traffic. Deflection, soil pressure, and pore pressure data are presented in Tables A12 through A14. All gages were tied into a microprocessor system which read peak values from each gage onto a cassette tape. Several oscilliscope recordings were made and typical output from each type of gage is shown in Figure A21.

118. The soil pressure cell at a depth of 3 ft in Item 1 and a pore pressure cell in Item 3 went bad prior to traffic, and no data were obtained from these gages. The unloaded static reading on the soil pressure cell at a depth of 3 ft in Item 3 increased substantially during the testing as expected. The soil pressure cell at a depth of 3 ft in Item 5 also showed a large increase after 1,950 passes.

Cap and pin surface deflection measurements

119. Level readings were obtained on the cap and pin devices periodically during the traffic testing. The data obtained are presented in Table A15 along with the computed permanent, total, and elastic deflections that occurred at the surface.

120. No data were obtained from the gage at sta 1+38 after 1,100 passes. The cap was visibly displaced laterally and the top of the pin bent during traffic from 1,100 to 1,300 passes. All other gages were read throughout traffic.

Nondestructive Testing

121. Nondestructive tests were performed in each lane at the predetermined pass levels of 0, 40, 130, 326, 650, 1,300, and 2,600 with additional data taken at 1,100 and 1,950 passes in lane 1 only. Measurements were made with the WES 16-kip vibrator, the Road Rater 2008, and the Falling Weight Deflectometer. The nondestructive test data are tabulated in Tables A16 through A18. An outline of test procedures for each device is discussed below.

WES 16-kip vibrator

122. Tests were performed with the WES 16-kip vibratory loading device

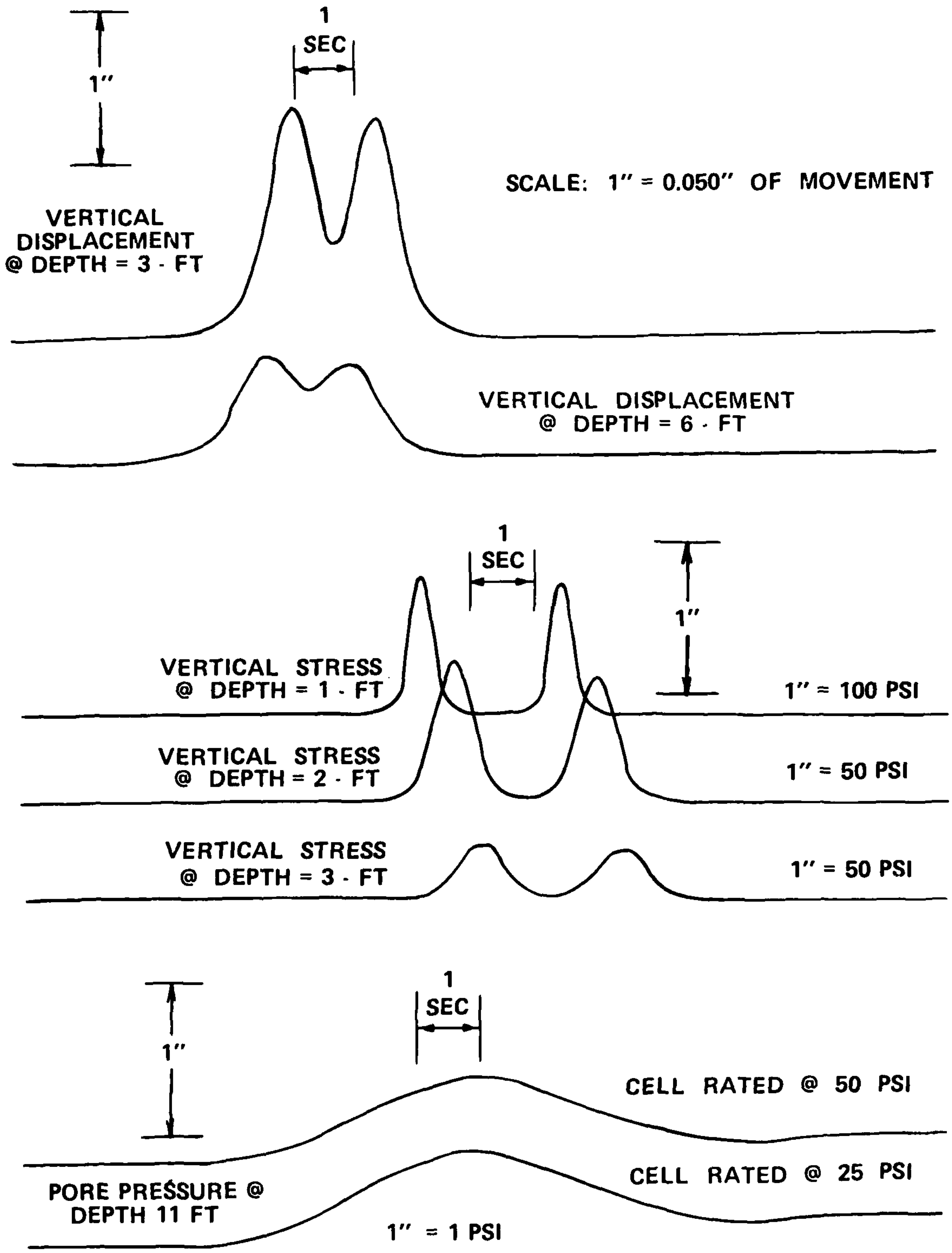


Figure A21. Oscilloscope recordings showing typical output from soil instrumentation

along the center line of the wheel path at three locations within each item (midpoint and quarter point). Data collected included a load sweep (15 Hz) and a deflection basin measurement (force = 10,000 lb). If the 10,000-lb force was not reached, the basin was measured at approximately 80 percent of the maximum force obtained. The DSM was determined from the slope of the load-deflection curve for each test location. WES 16-kip test results are shown in Table A16.

Road Rater 2008

123. Tests were performed with the Road Rater 2008 along the center line of the wheel path at three locations within each item (midpoint and quarter point). Data collected consisted of deflection basin measurements at force levels of 1,000, 5,000, and 7,000 lb (frequency = 15 Hz). A DSM was computed using the deflections at force levels of approximately 5,000 and 7,000 lb as follows:

$$DSM_{RR} = \frac{\text{Force}_{7000} - \text{Force}_{5000} \text{ (kips)}}{\text{Plate Deflection}_{7000} - \text{Plate Deflection}_{5000} \text{(inches)}}$$

Road Rater 2008 test results are presented in Table A17.

Falling Weight Deflectometer

124. Tests were performed with the Falling Weight Deflectometer along the center line of the wheel path at the midpoint and quarter point in each item. Additional tests were performed on all transitions and at 2-ft intervals for a distance of 6 ft on either side of the transitions with the exception of Item 2, lanes 1 and 2. Tests were performed in these items directly over each pipe and at several points between each pipe. Data consisted of deflection basin measurements obtained at two separate force levels. The mass was dropped from heights of 3.44 and 14.94 in. each time. A stiffness value was computed from each test as:

Falling Weight Deflectometer stiffness

$$= \frac{\text{Pressure}_{\text{Drop Height = 14.94 in.}} \text{ (kilopascals)}}{\text{Plate Deflection} \quad \text{(microns)}}$$

Falling weight test results are tabulated in Table A18.

Traffic

125. Traffic tests were begun on 7 April 1981. Zero coverage data were obtained prior to the start of traffic in each lane. Approximately 70 passes of the load cart were applied per hour at an estimated speed of 3 mph. The behavior of each item under traffic is presented in the following paragraphs. Photographs indicated an uneven pressure distribution across the wheel path. The contact pressure was apparently greater near the edges of the tire and minimal at the center.

Lane 1

126. Lane 1 was trafficked during the period 27 April 1981 to 8 May 1981. Cross-section and center-line profile data are presented in Figures A22 through A35. Rut depths are tabulated in Table A19 and plots of rut depth versus load cart passes for Items 1 through 5 are pressented in Figure A36. These ruts are actually changes in surface elevation as determined from cross-section and profile data (rod and level). The photographs will show that much of the change in elevation is actually due to loss of surface material or migration of the loose surface particles due to the action of the tires.

127. Item 1. Item 1 consisted of 36 in. of heavy clay (CBR = 5) surfaced with 36 in. of crushed limestone. The effects of the smooth tires at 62,500 lb were not severe on the crushed stone. Photos A41 through A43 show the surface condition before traffic and after 326 and 2,600 passes.

128. Some degradation of the surface was observed at 40 passes. Fines were expelled and the larger aggregate left exposed. Looser aggregate could be seen along the center of the wheel path where the pressure was obviously lesser.

129. Cracking of the surface was not a problem. A minor crack was observed along the east edge near Item 2 at 326 passes. Raveling and surface loss under the smooth tires were minimal. The surface effect of the cleated tire (at a much smaller load) on the front of the prime mover can be seen in the photographs.

130. An average rut depth of 0.4 in. was obtained with the application of 2,600 passes. Cross sections are shown in Figure A22 for sta 0+12.5, 0+25.0, and 0+37.5 at pass levels of 0, 326, and 2,600. A center-line profile is presented in Figure A23.

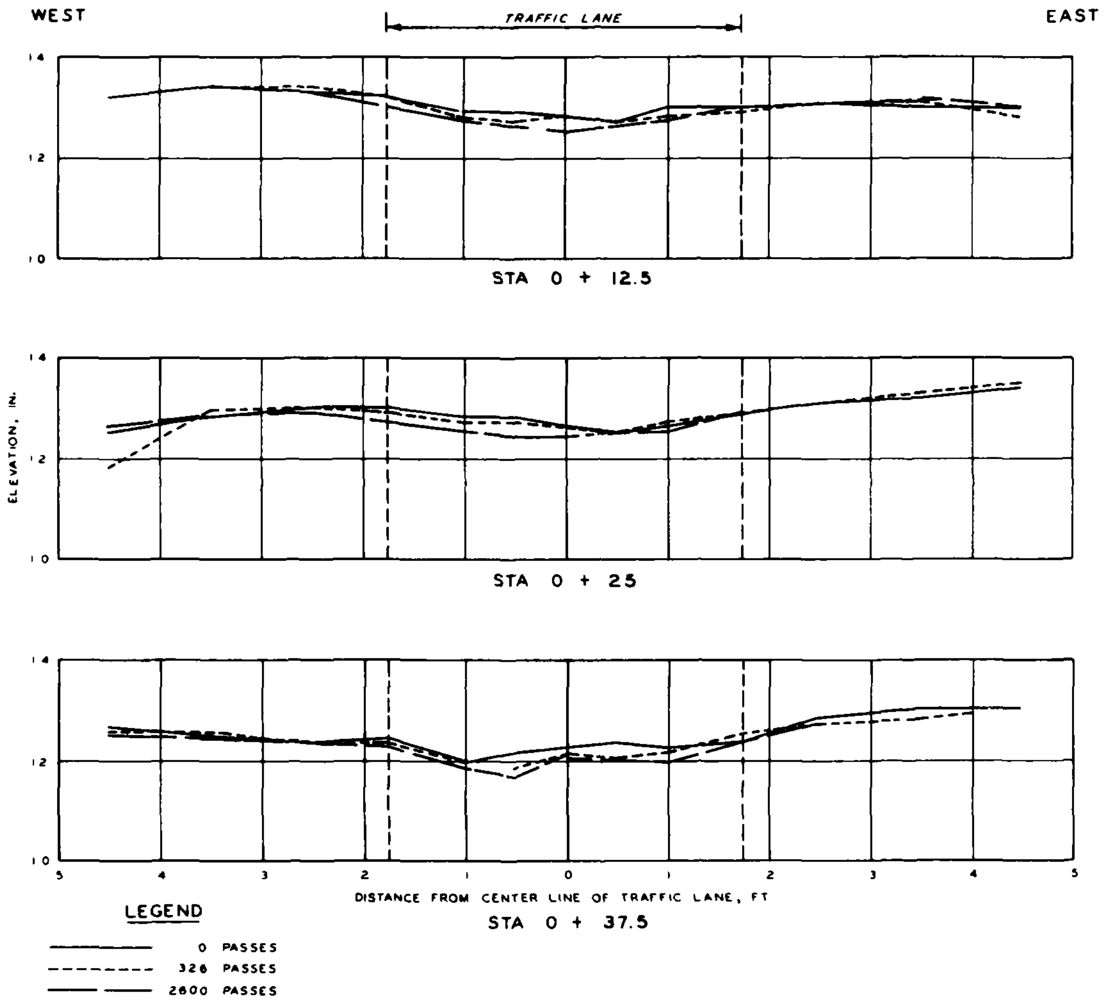


Figure A22. Cross sections, lane 1, Item 1

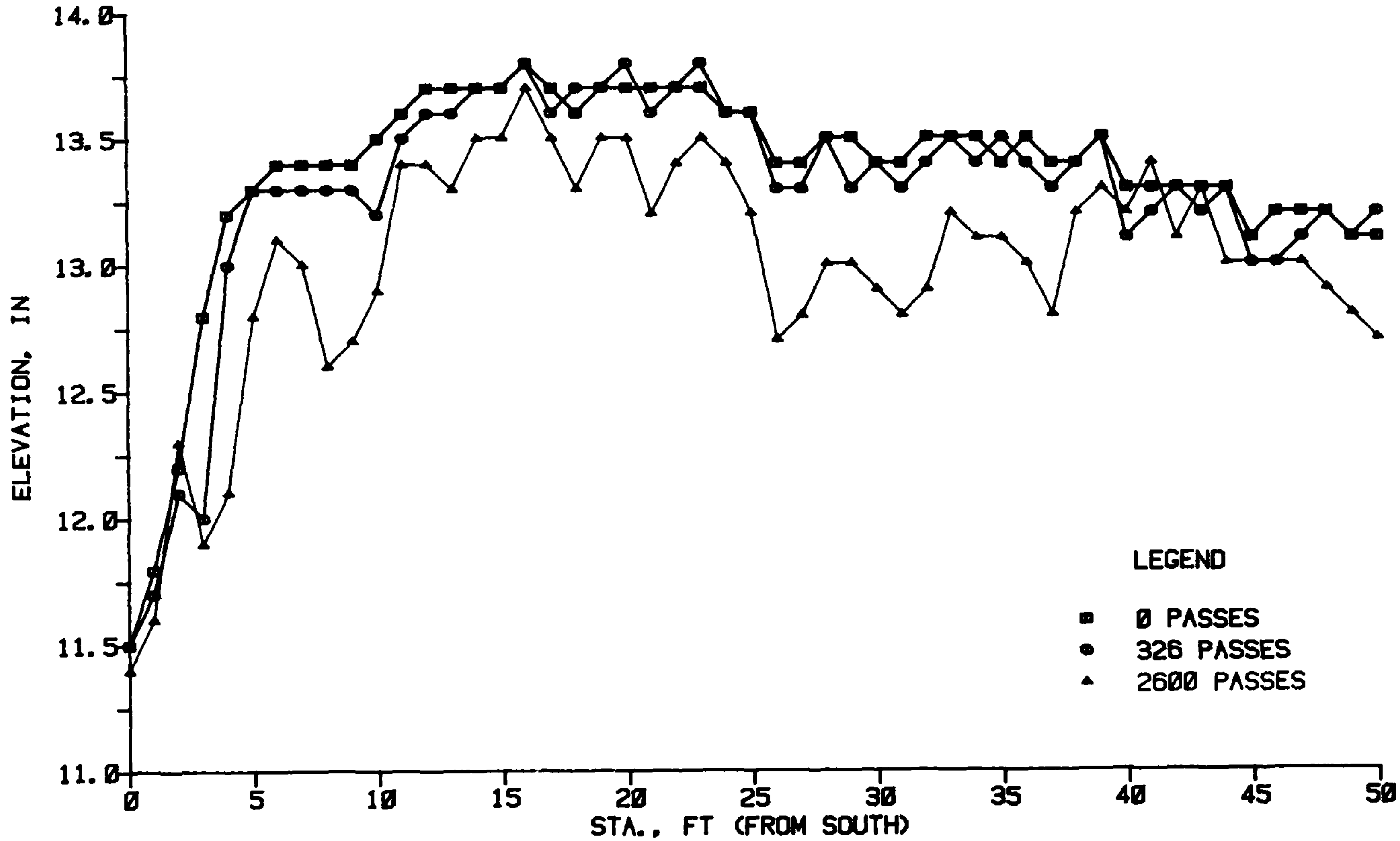


Figure A23. Center-line profile, lane 1, Item 1

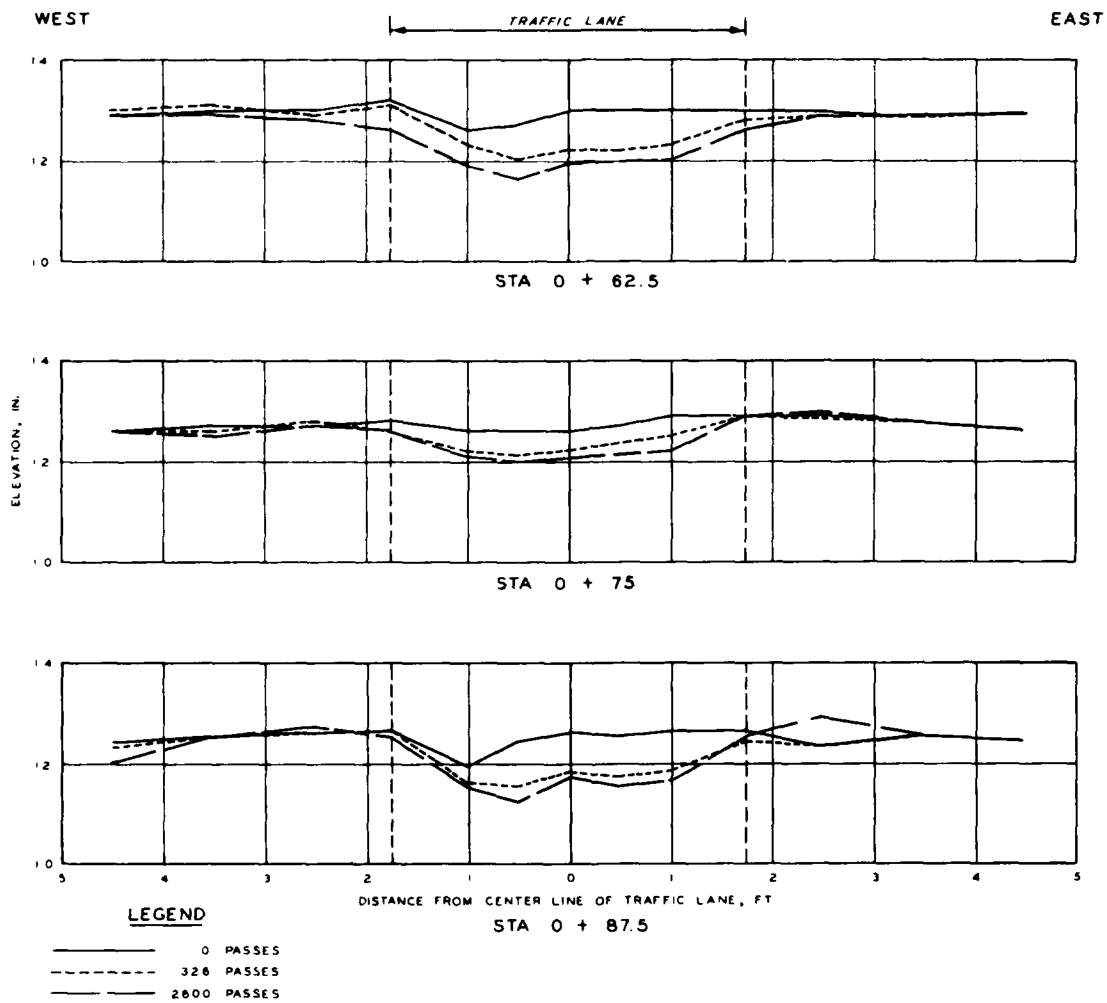


Figure A24. Cross sections, lane 1, Item 2

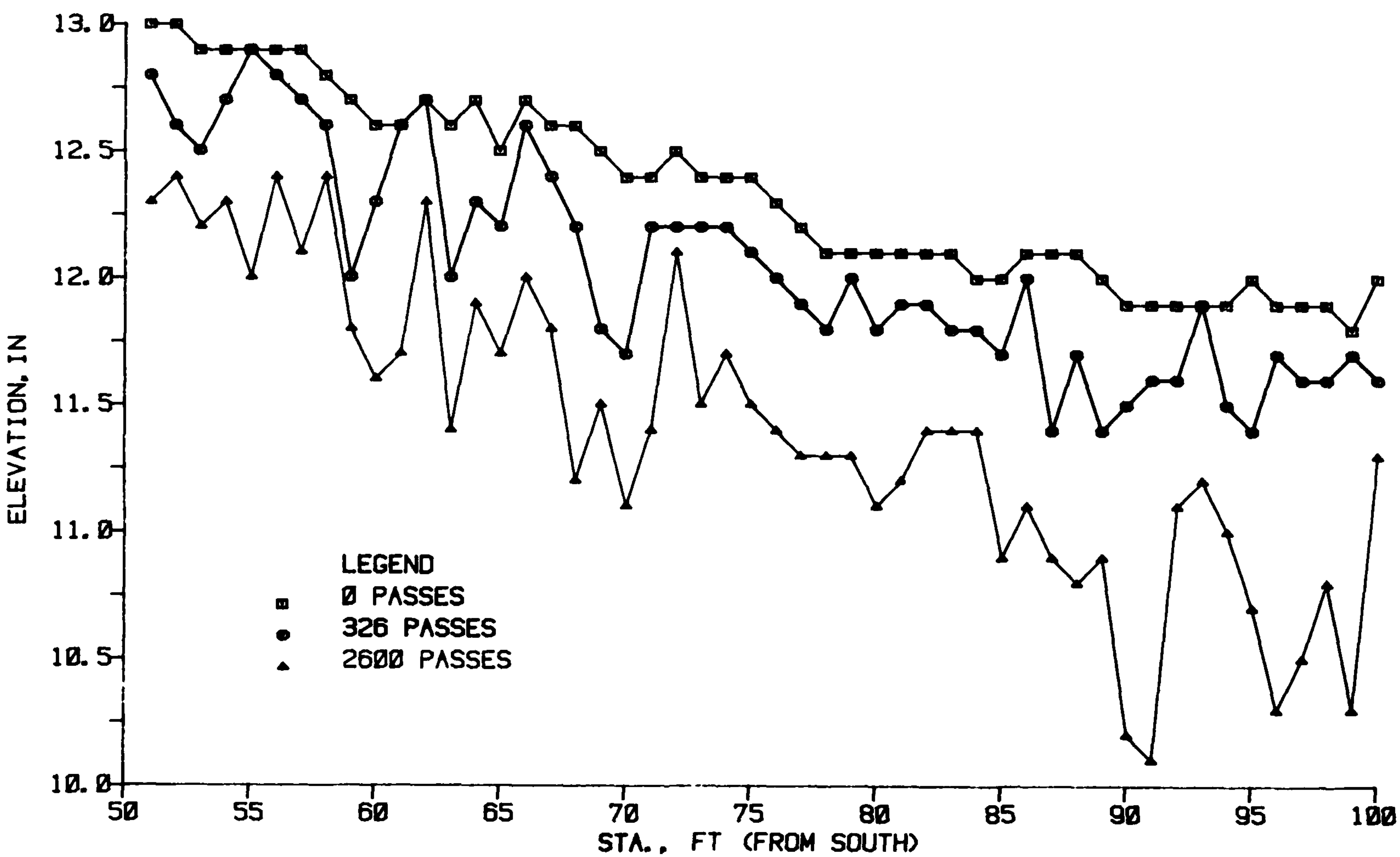


Figure A25. Center-line profile, lane 1, Item 2

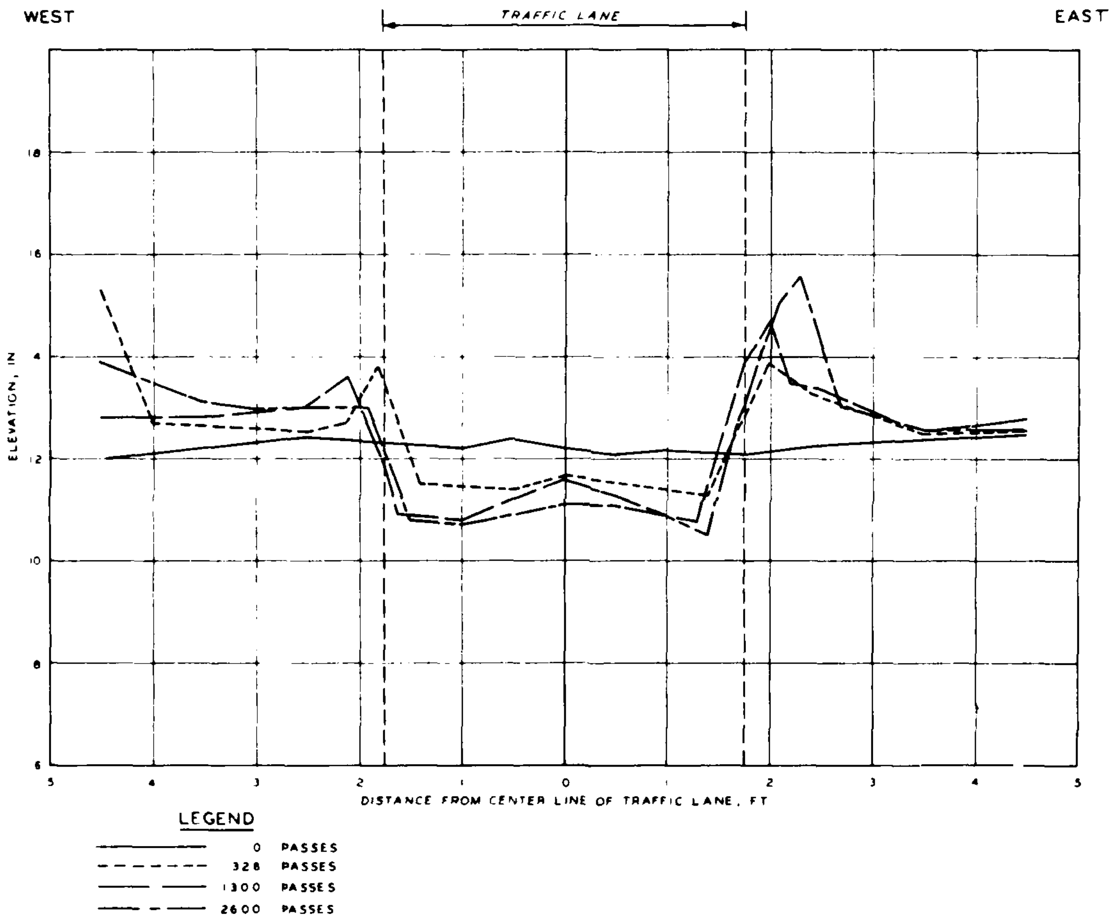


Figure A26. Cross sections, lane 1, Item 3, sta 1+12.5

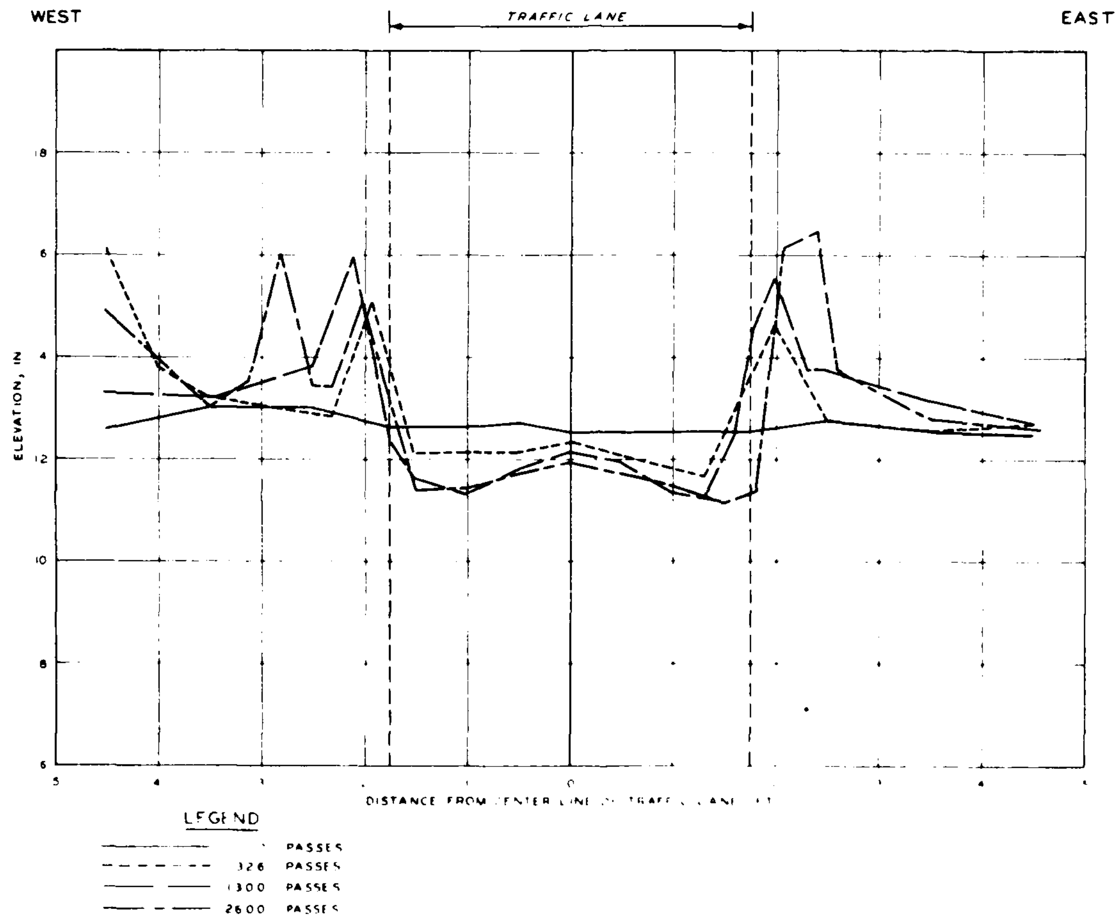


Figure A27. Cross sections, lane 1, Item 3, sta 1+25

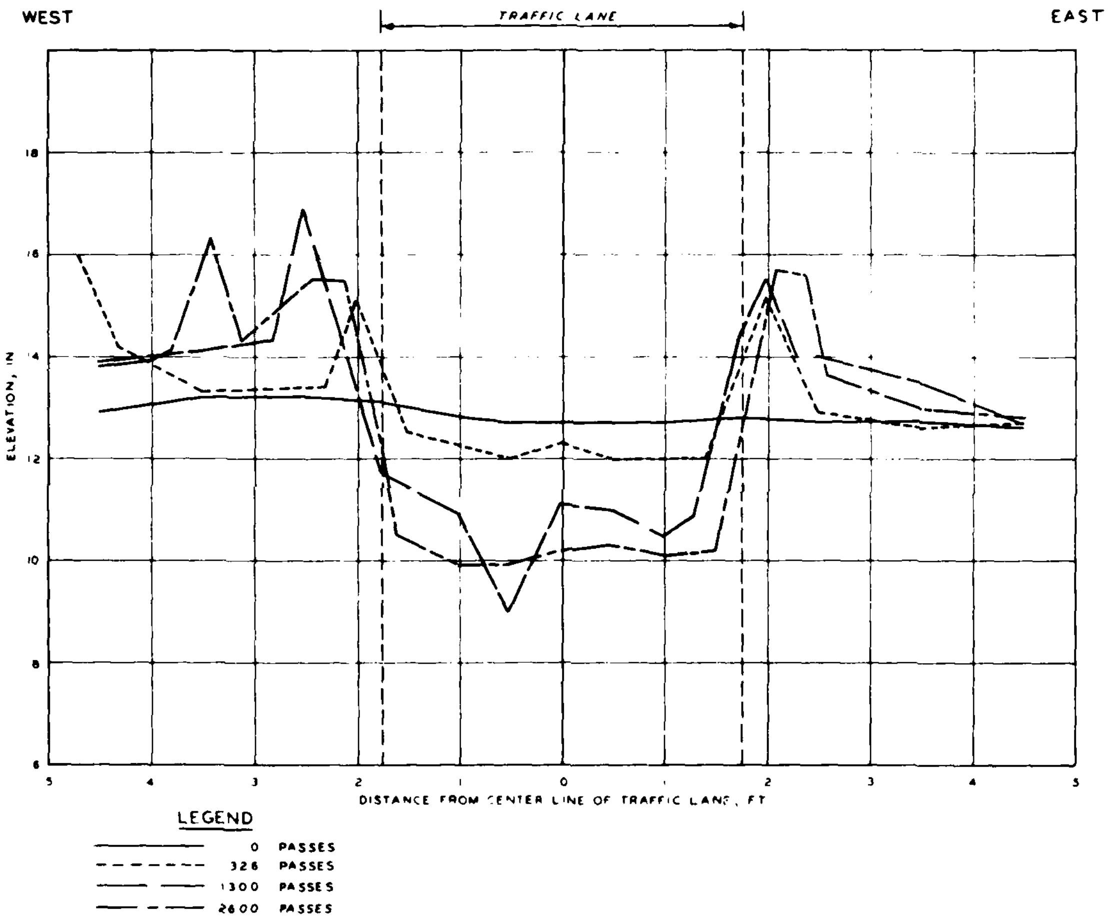


Figure A28. Cross sections, lane 1, Item 3, sta 1+37.5

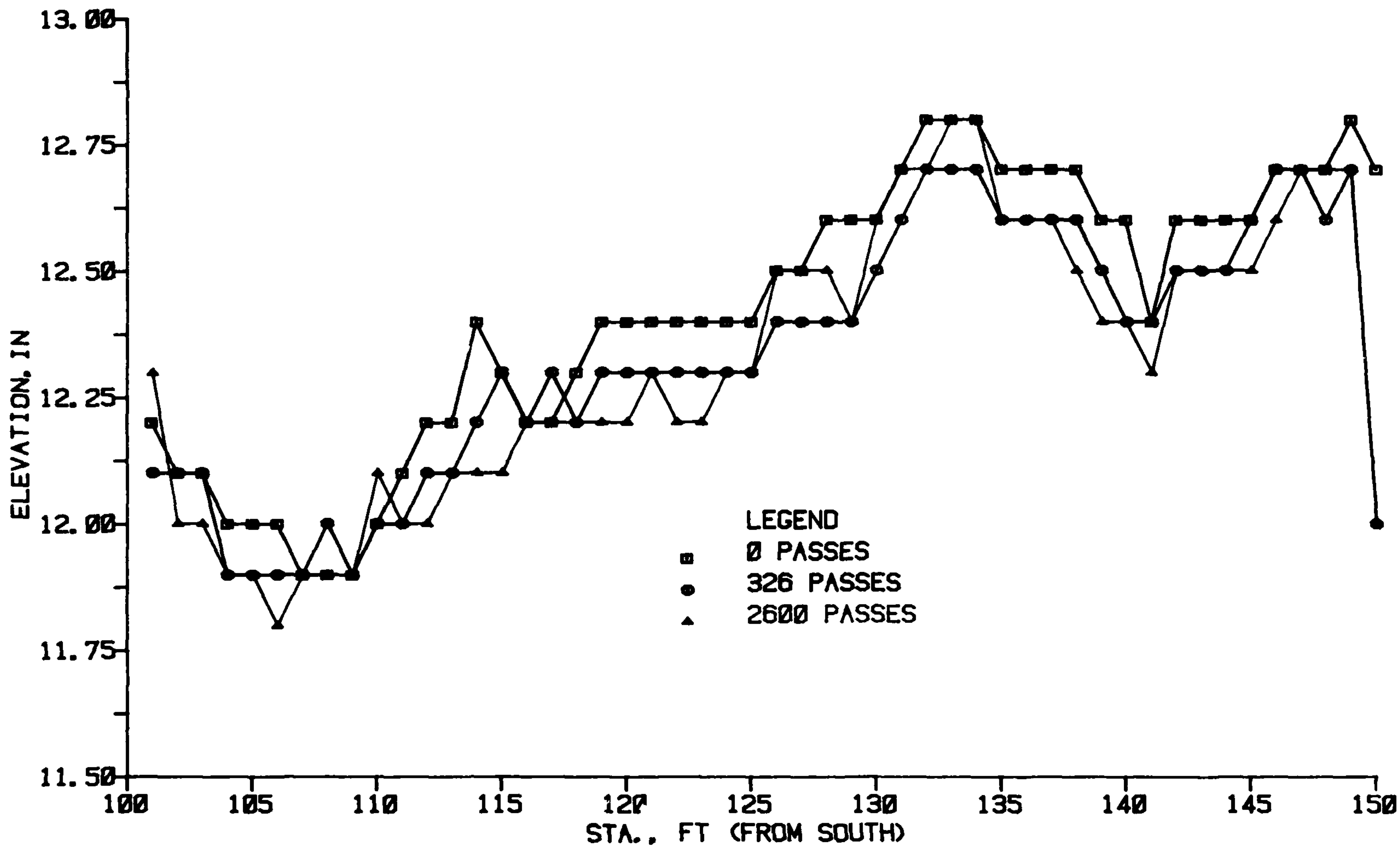


Figure A29. Center-line profile, lane 1, Item 3

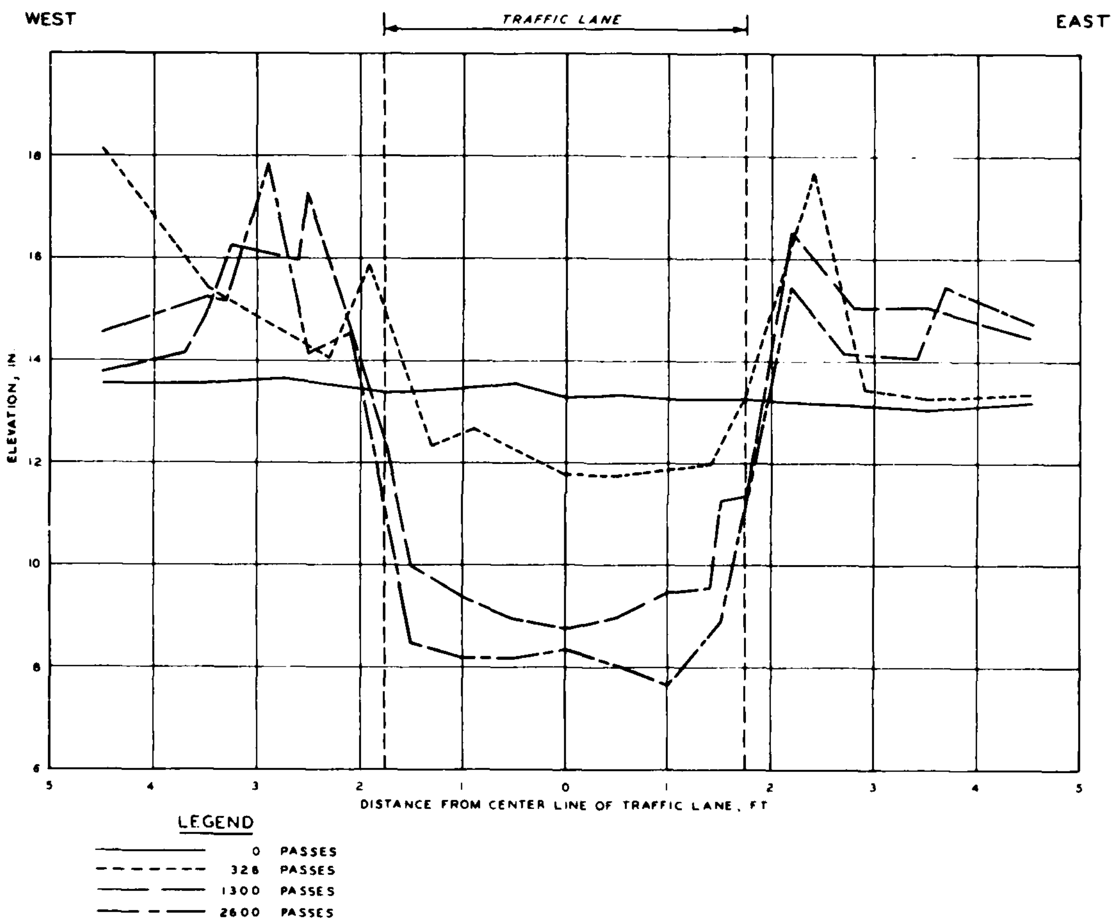


Figure A30. Cross sections, lane 1, Item 4, sta 1+62.5

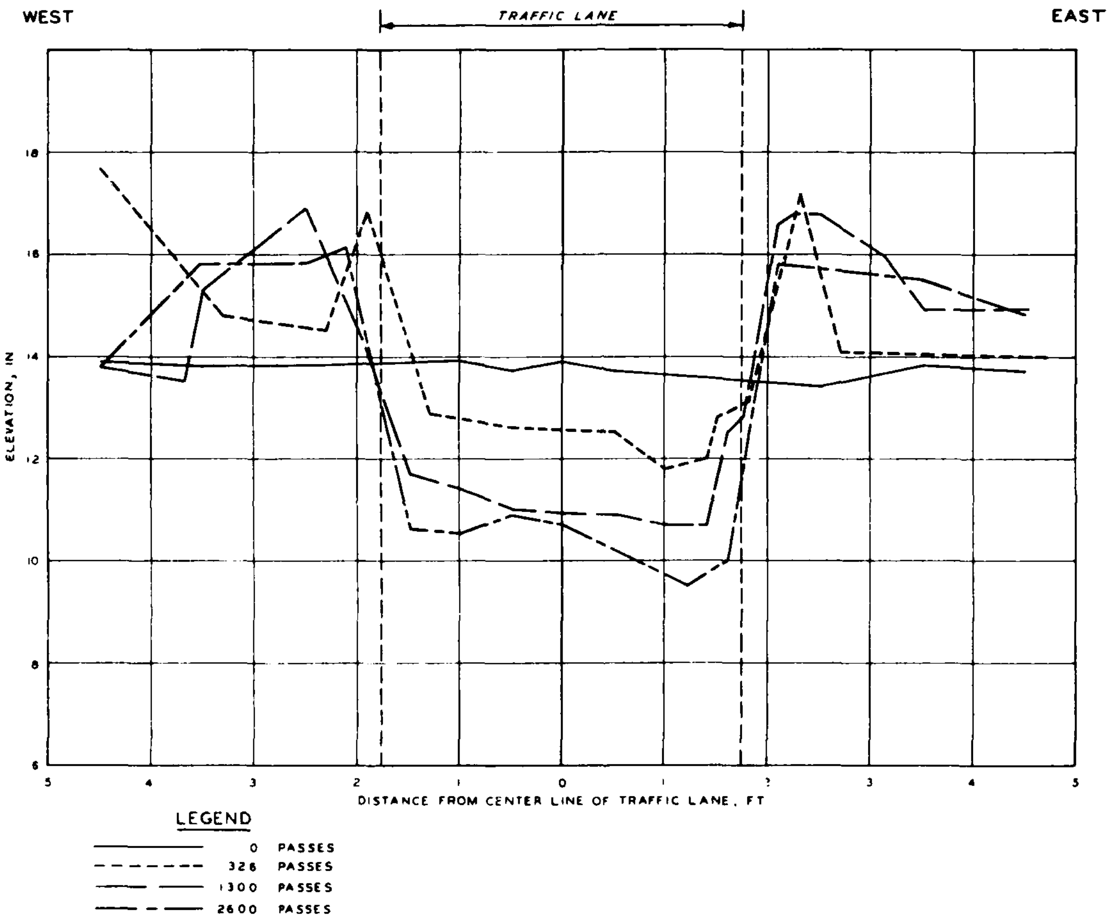


Figure A31. Cross sections, lane 1, Item 4, sta 1+75

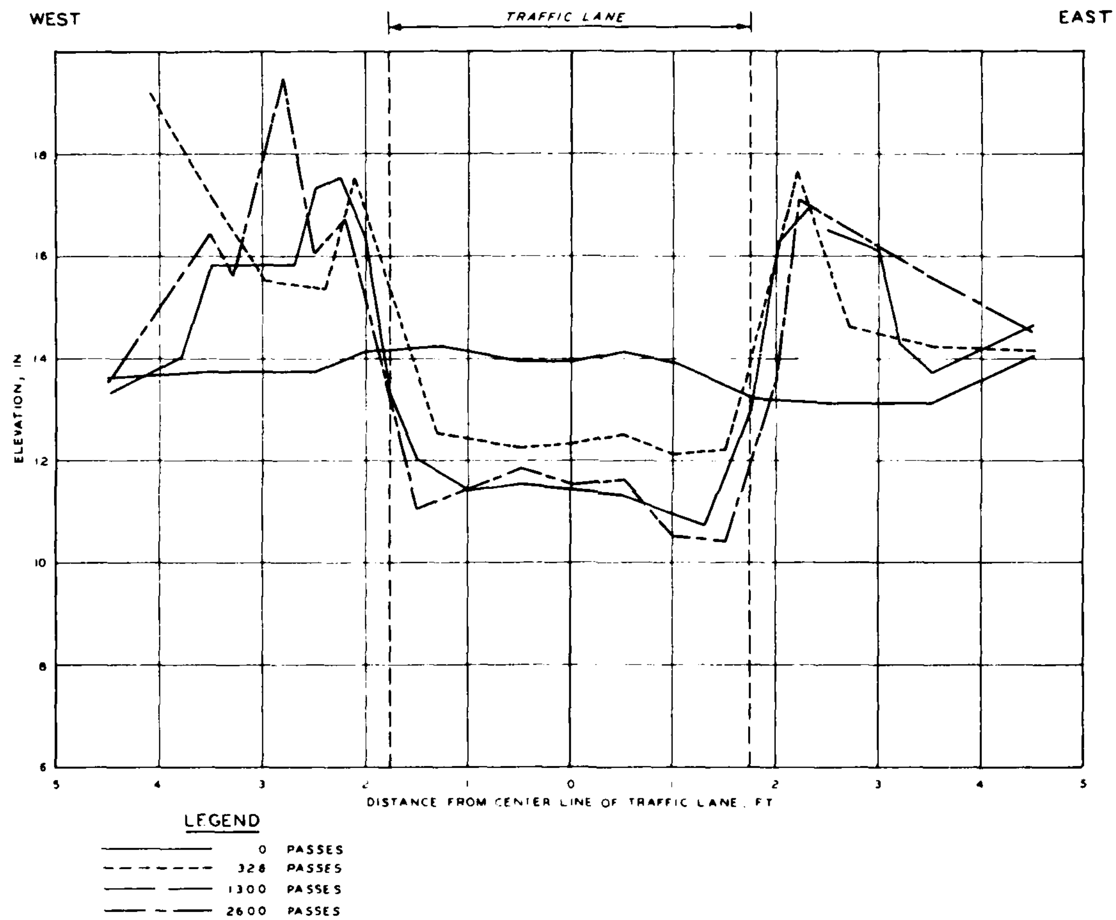


Figure A32. Cross sections, lane 1, Item 4, sta 1+87.5

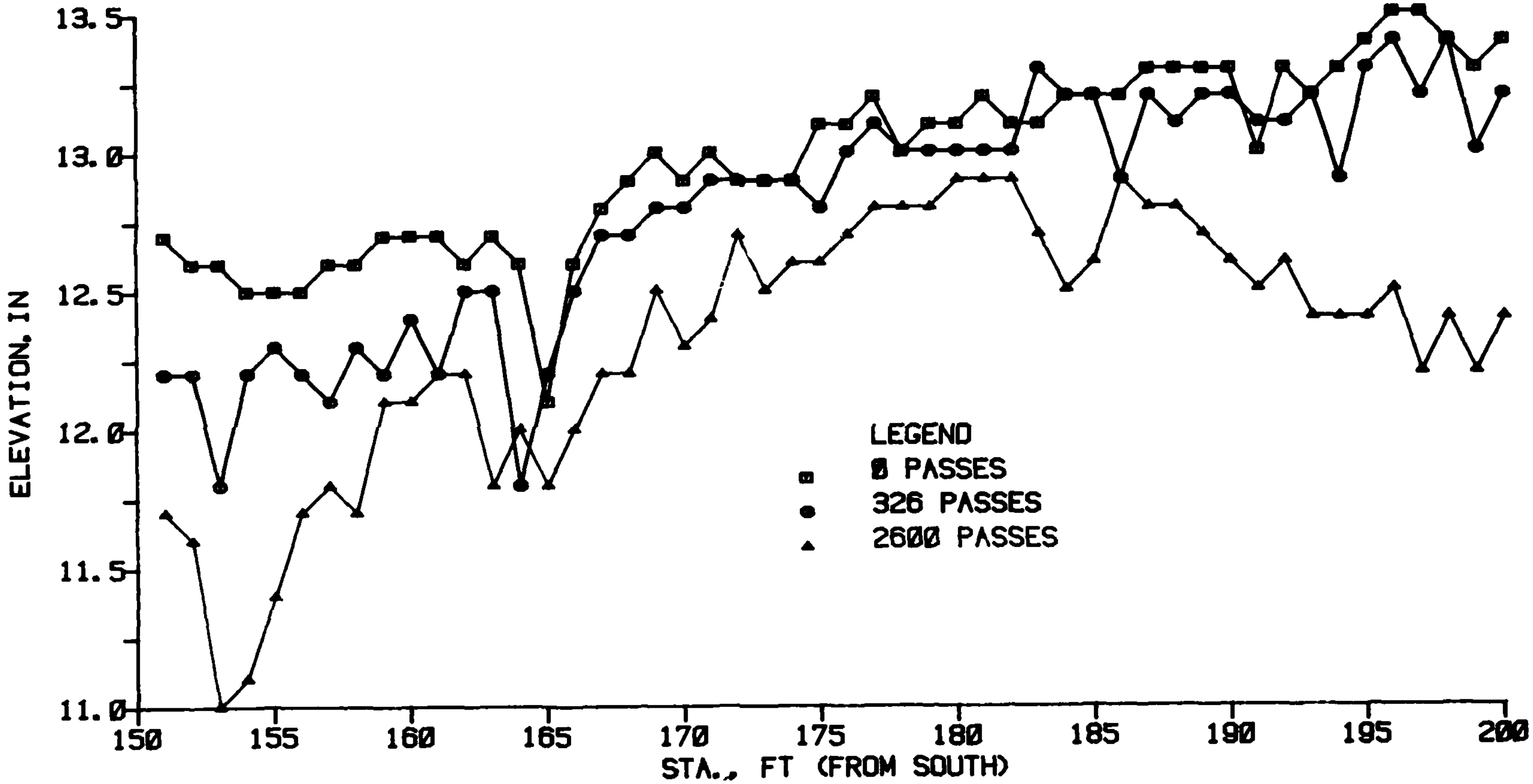


Figure A33. Center-line profile, lane 1, Item 4

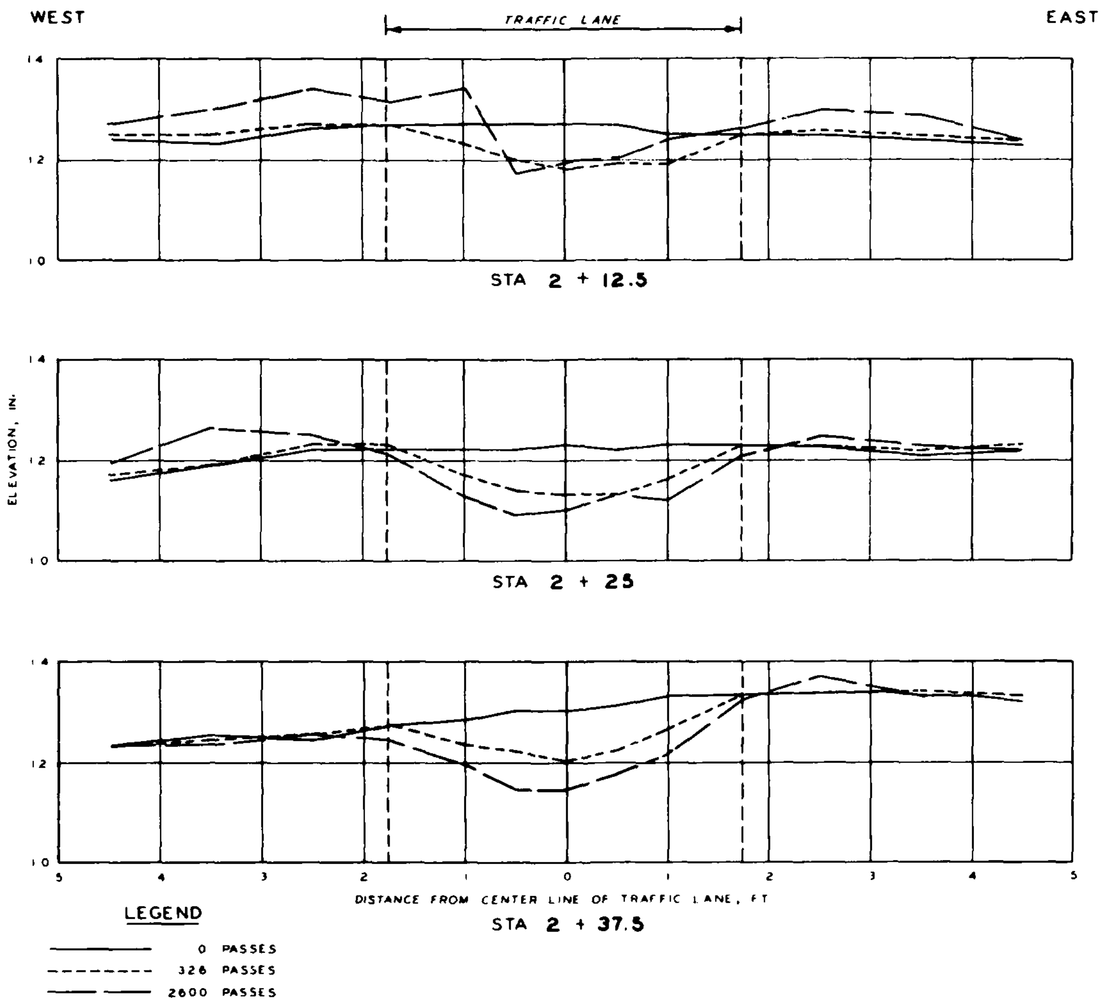


Figure A34. Cross sections, lane 1, Item 5

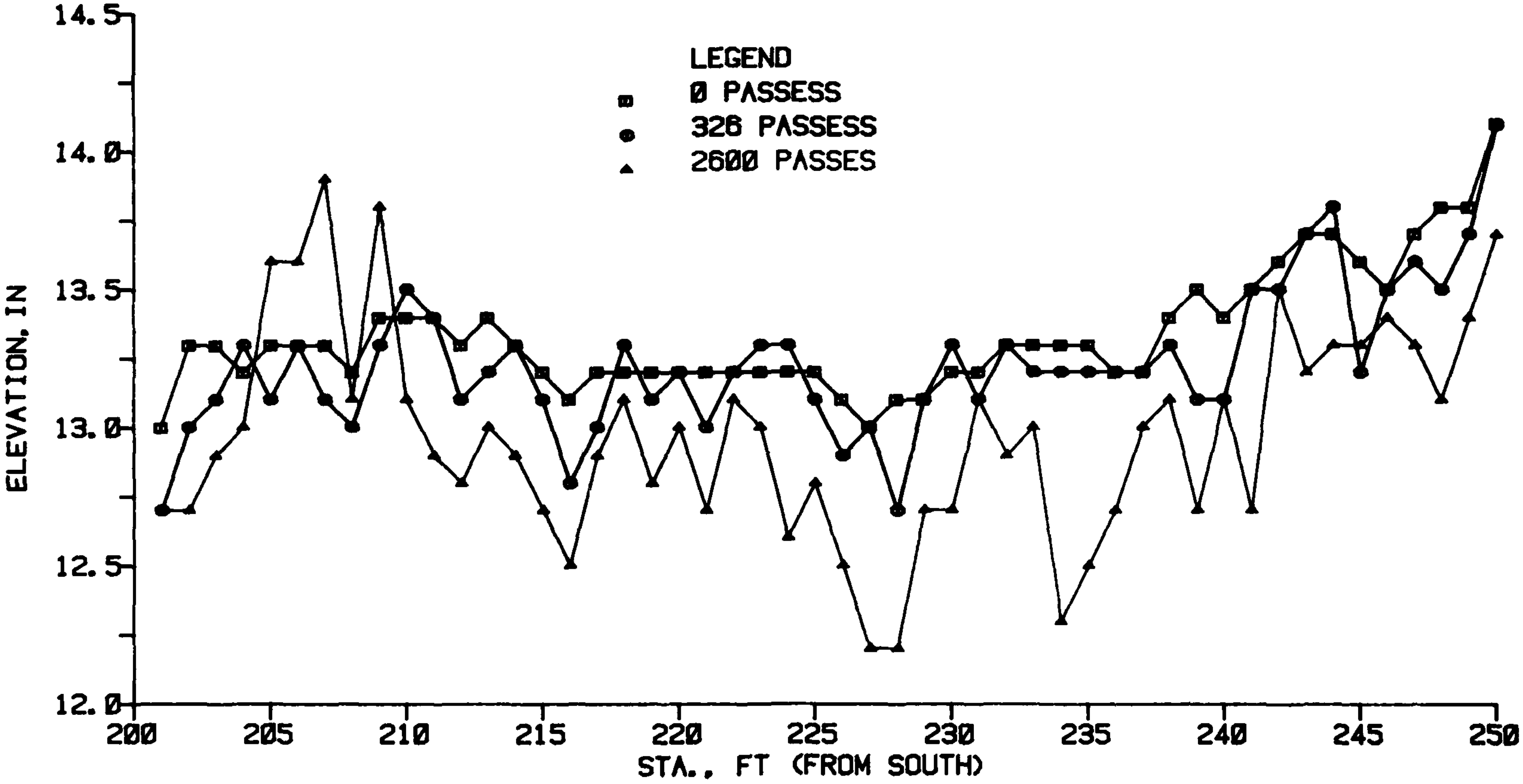


Figure A35. Center-line profile, lane 1, Item 5

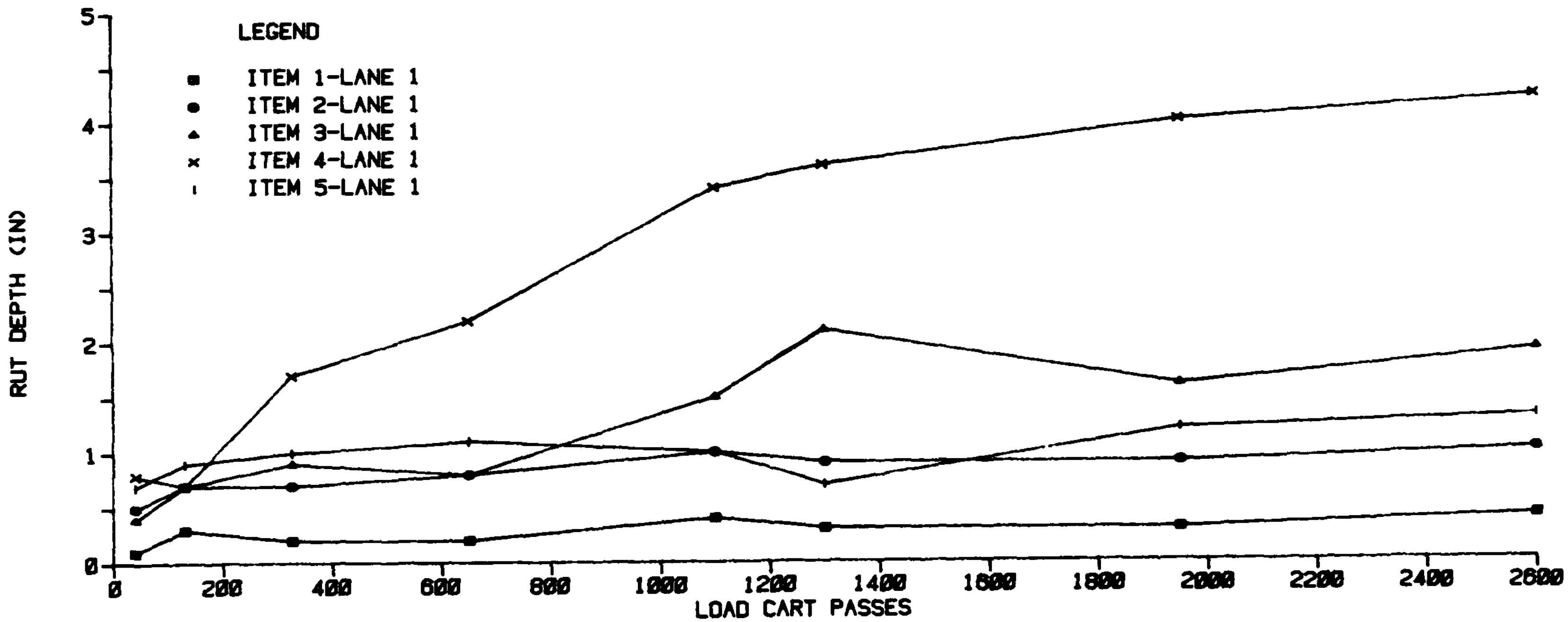


Figure A36. Rutting, lane 1

131. The patch seen in the photo at 326 passes is the result of an unsuccessful attempt to monitor the movement of surface aggregate particles during traffic. Each of the stripes represents a different color aggregate. The paint used on the rocks tended to glue the particles together, and no movement occurred.

132. Item 2. Item 2 consisted of 63 in. of Blend II (CBR = 15) with a 9-in. crushed limestone surface. Culvert pipes 1 through 6 were located in this item. Photos A44 through A46 show the surface before traffic and after 326 and 2,600 passes.

133. Some degradation and surface loss had occurred at 40 passes. Fines were moved to the edges and middle of the wheel path. Low severity cracks were observed outside the wheel path at several pipe locations after 40 passes. The cracks did not appear to increase in severity during the remaining traffic. Raveling of the surface was not severe. The surface was however more uneven than in Item 1. Slight depressions could be seen above the pipes at 130 passes. An average rut depth of 1.0 in. was obtained after 2,600 passes. Cross sections for sta 0+62.5, 0+75.0, and 0+87.5 are shown in Figure A24 for pass levels of 0, 326, and 2,600. A center-line profile is provided in Figure A25.

134. Item 3. Item 3 consisted of 72 in. of Blend II (CBR = 15). Photos A47 through A49 show the surface before traffic and after 326 and 2,600 passes.

135. Severe surface loss and degradation occured with the application of traffic. Fines were removed to the edges of the wheel path. The surface had begun to get uneven and rough at 130 passes and got progressively worse with further traffic to the condition seen in Photo A49. Rutting appeared to be totally due to surface loss with no evidence of structural failures. A comparison with the effects of the cleated tires can be seen in the photographs. An average rut depth of 1.9 in. was obtained after 2,600 load cart passes. This average rut depth was taken from cross-section data and reflects only the change in surface elevation. The buildup of fines along the edges was not considered because this material was disturbed by NDT equipment each time data were collected. Cross sections for sta 1+12.5, 1+25.0, and 1+37.5 are shown in Figures A26 through A28 for pass levels of 0, 326, 1,300, and 2,600. A center-line profile is plotted in Figure A29.

136. Item 4. Item 4 consisted of 63 in. of Blend II (CBR = 15)

surfaced with 9 in. of Blend I (CBR = 15). Photos A50 through A52 show the surface before traffic and after 326 and 2,600 passes.

137. Surface loss was more severe on Blend I than on Blend II in Item 3. Fines were removed to the edges of the wheel path. The surface began to get rough at approximately 130 passes. As the surface continued to deteriorate, the load cart began to bounce or washboard causing a pothole type effect. Ruts appeared to be nonstructural and the result of surface loss. An average rut depth of 4.2 in. was obtained after 2,600 load cart passes. The average rut depth was taken from cross-section data and does not include the buildup of fines along the edges of the wheel path. The material outside the wheel path was disturbed during data collection by NDT equipment. Cross sections for sta 1+62.5, 1+75.0, and 1+87.5 are plotted in Figures A30 through A32 for pass levels of 0, 326, 1,300, and 2,600. A center-line profile is provided in Figure A33.

138. Item 5. Item 5 consisted of 72 in. of silt. Photos A53 through A55 show the surface before traffic and after 326 and 2,600 passes.

139. Several small low-severity cracks were observed outside the wheel path at 40 passes. The cracks did not increase in severity or present problems with further traffic. A depression was seen at sta 2+20 where the soil pressure cell WES-5B was located. The material above the cell had been dug out to repair the gage, and apparently compaction of the backfill was inadequate. Bleeding of Blend I from Item 4 into the south end of Item 5 can be seen in the photographs. The severe surface loss occurring in Item 4 caused the load cart to bounce at the transition to Item 5. This caused some washboarding, and the surface began to get rough near the south end of the item at 650 passes. An average rut depth of 1.3 in. was obtained after 2,600 load cart passes. Cross sections for sta 2+12.5, 2+25.0, and 2+37.5 are plotted in Figure A34 for pass levels of 0, 326, and 650. A center-line profile is shown in Figure A35.

Lane 2

140. Lane 2 was trafficked during the periods 20 to 24 April 1981 and 11 to 13 May 1981. Cross-section and center-line profile data are presented in Figures A37 through A46. Rut depths are tabulated in Table A19, and plots of rut depth versus load cart passes for Items 1 through 5 are shown in Figure A47. All visible cracks in the cement stabilized and concrete items were mapped at each data collection interval. After 2,600 passes, the loose

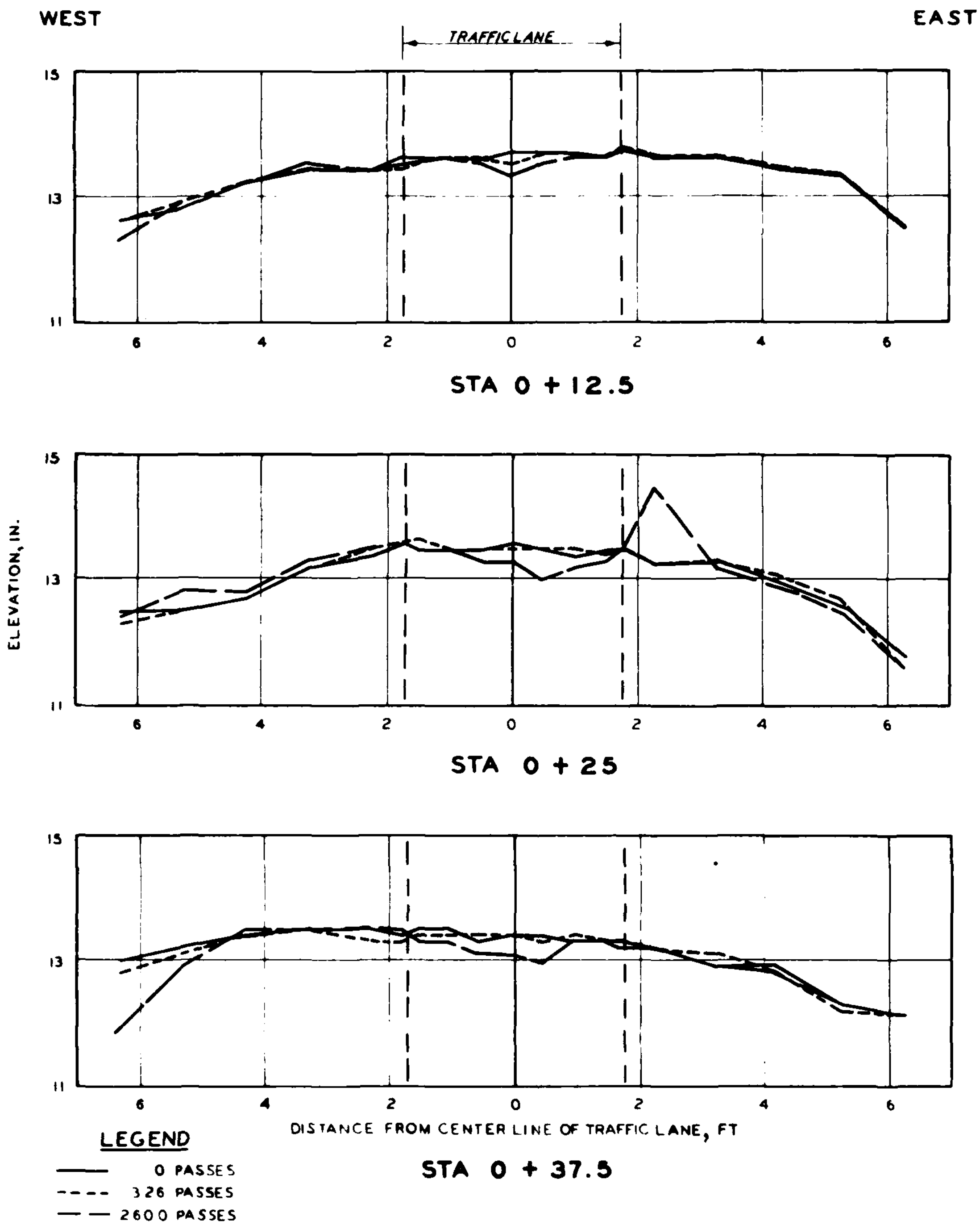


Figure A37. Cross sections, lane 2, Item 1

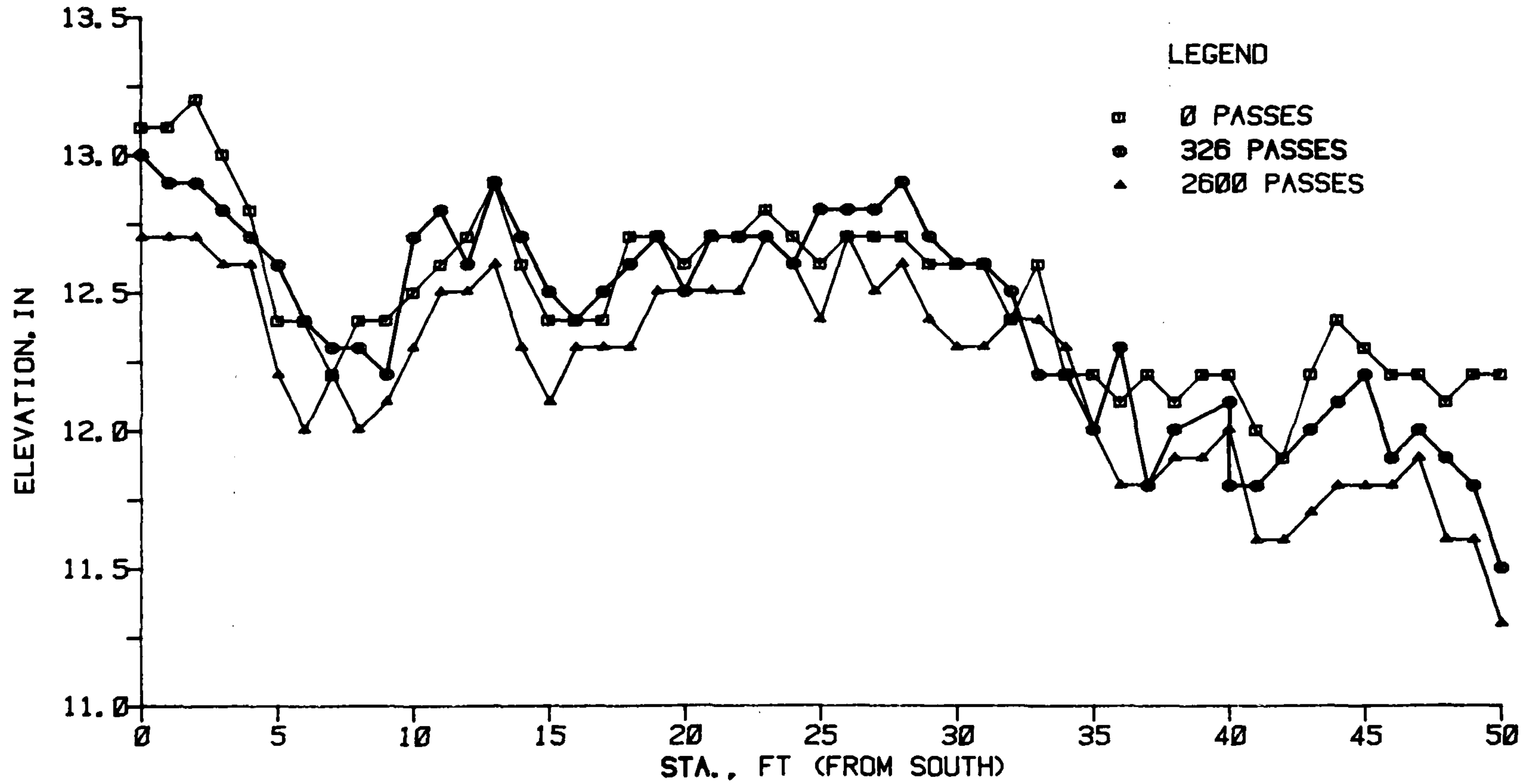


Figure A38. Center-line profile, lane 2, Item 1

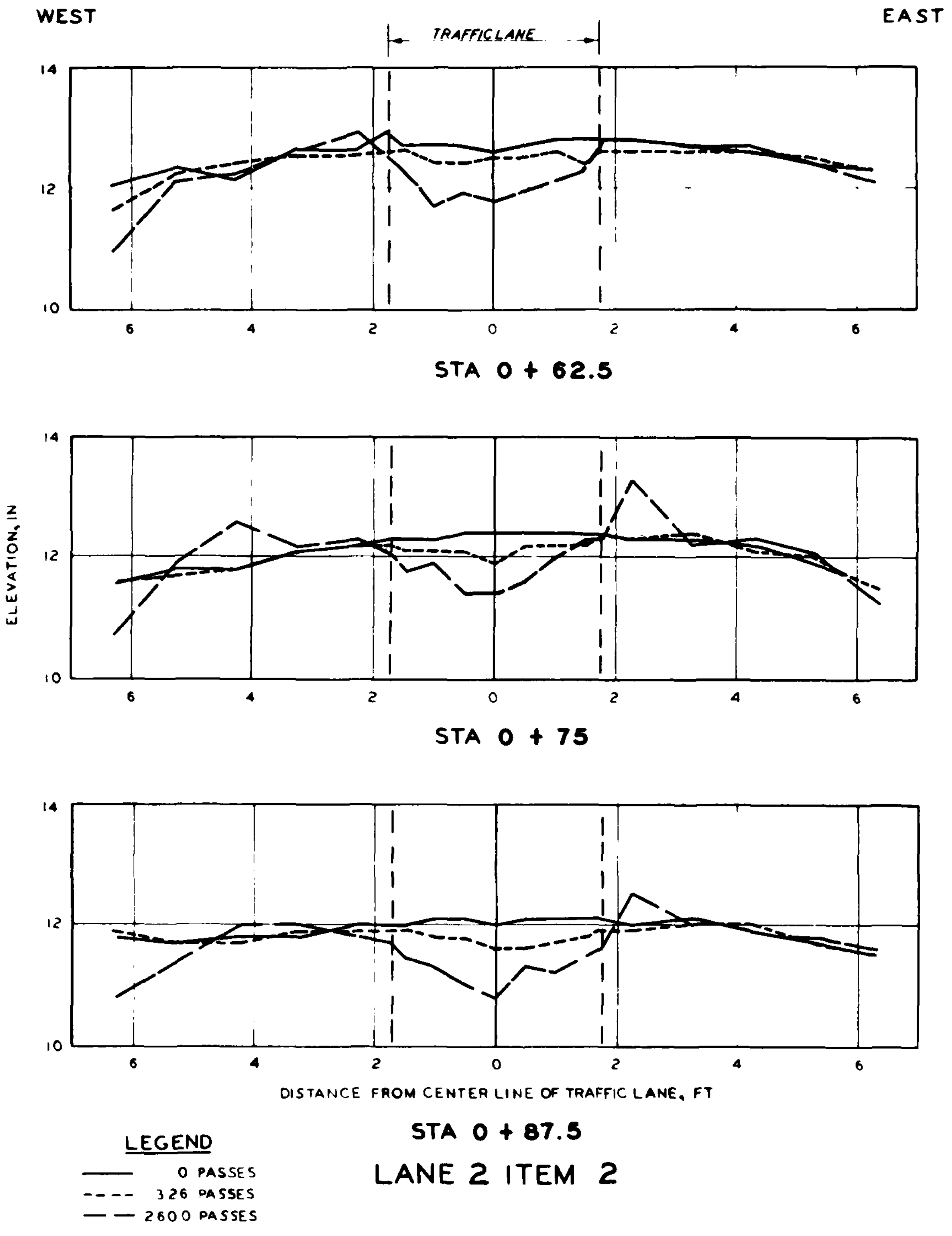


Figure A39. Cross sections, lane 2, Item 2

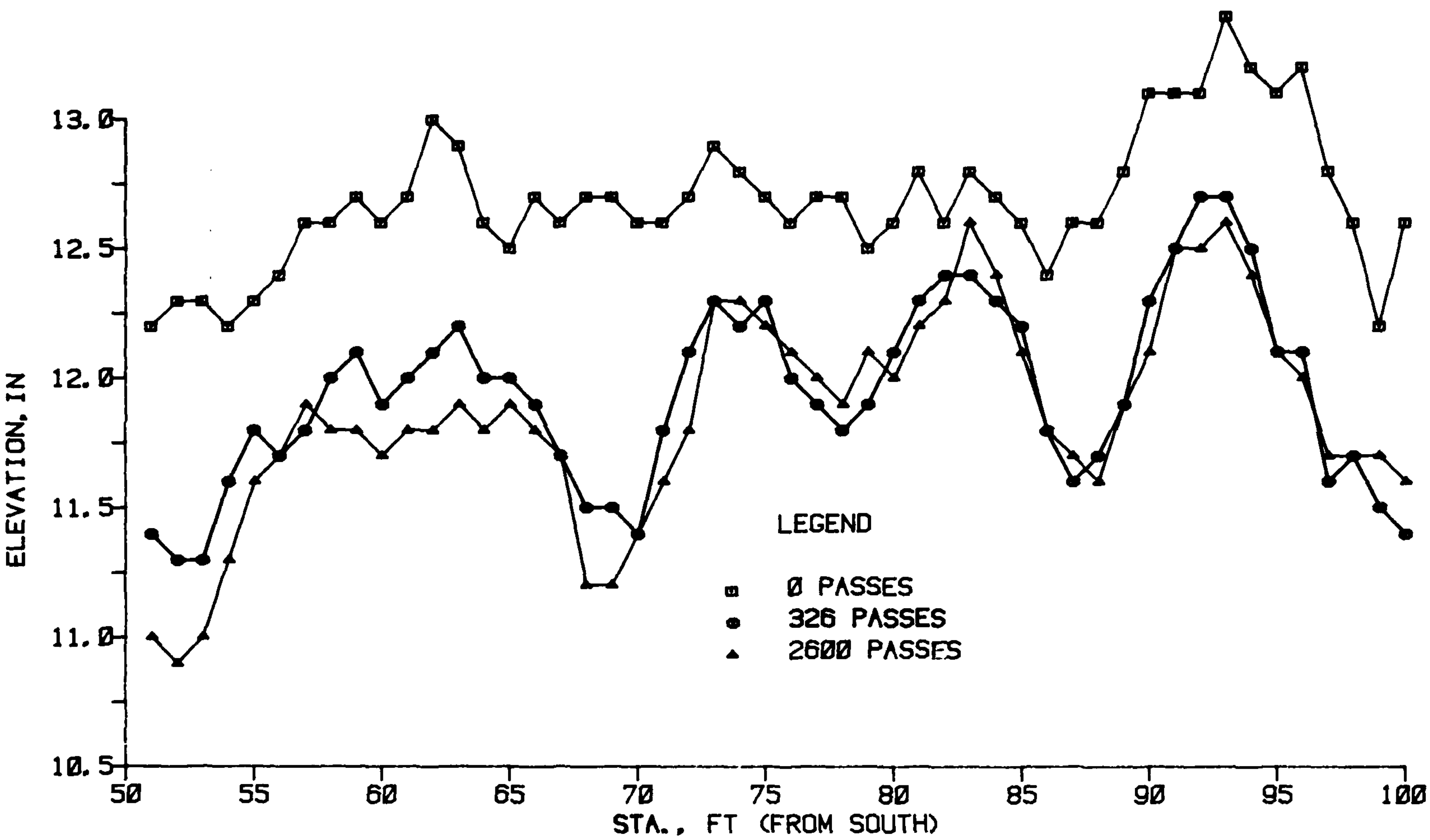


Figure A40. Center-line profile, lane 2, Item 2

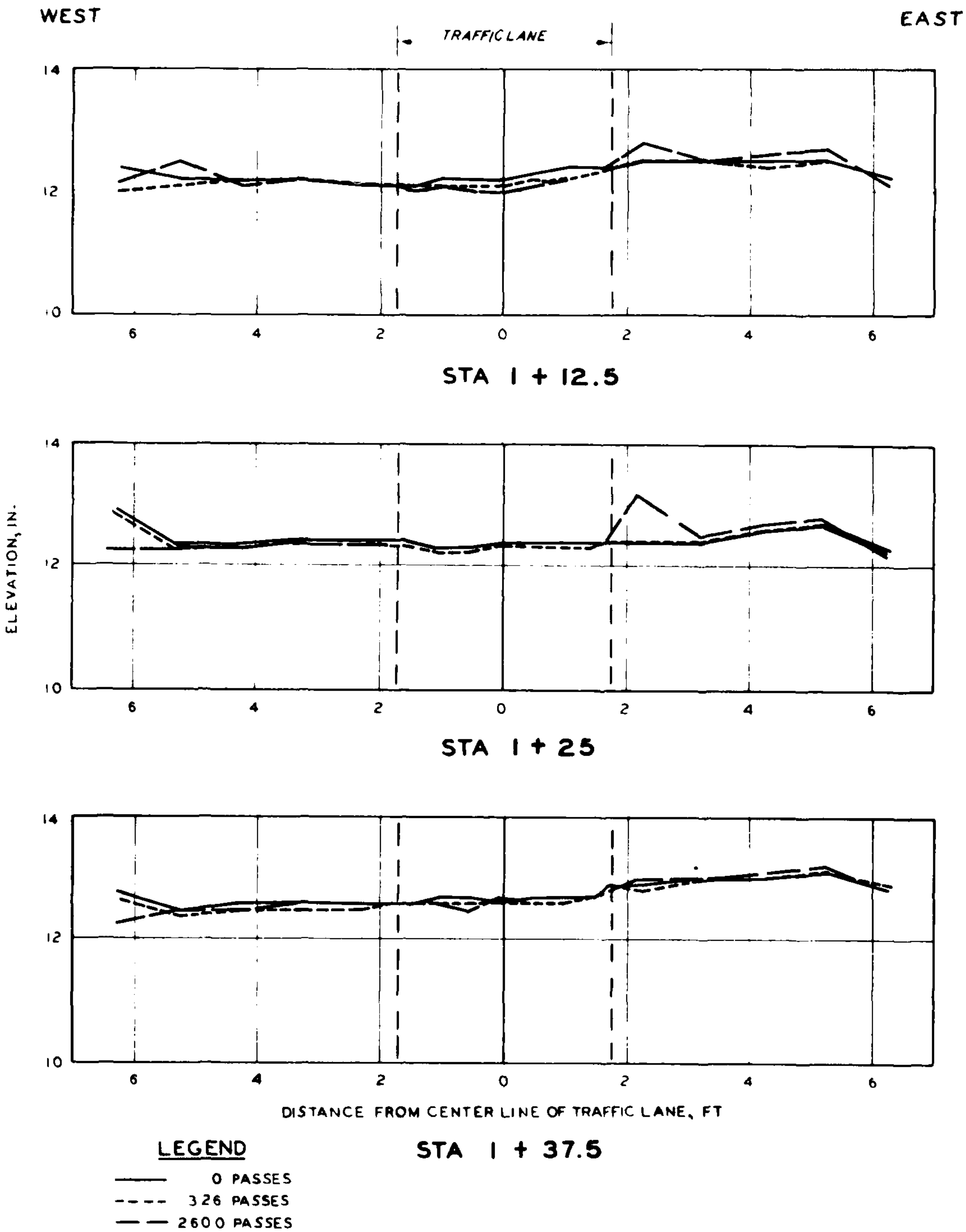


Figure A41. Cross sections, lane 2, Item 3

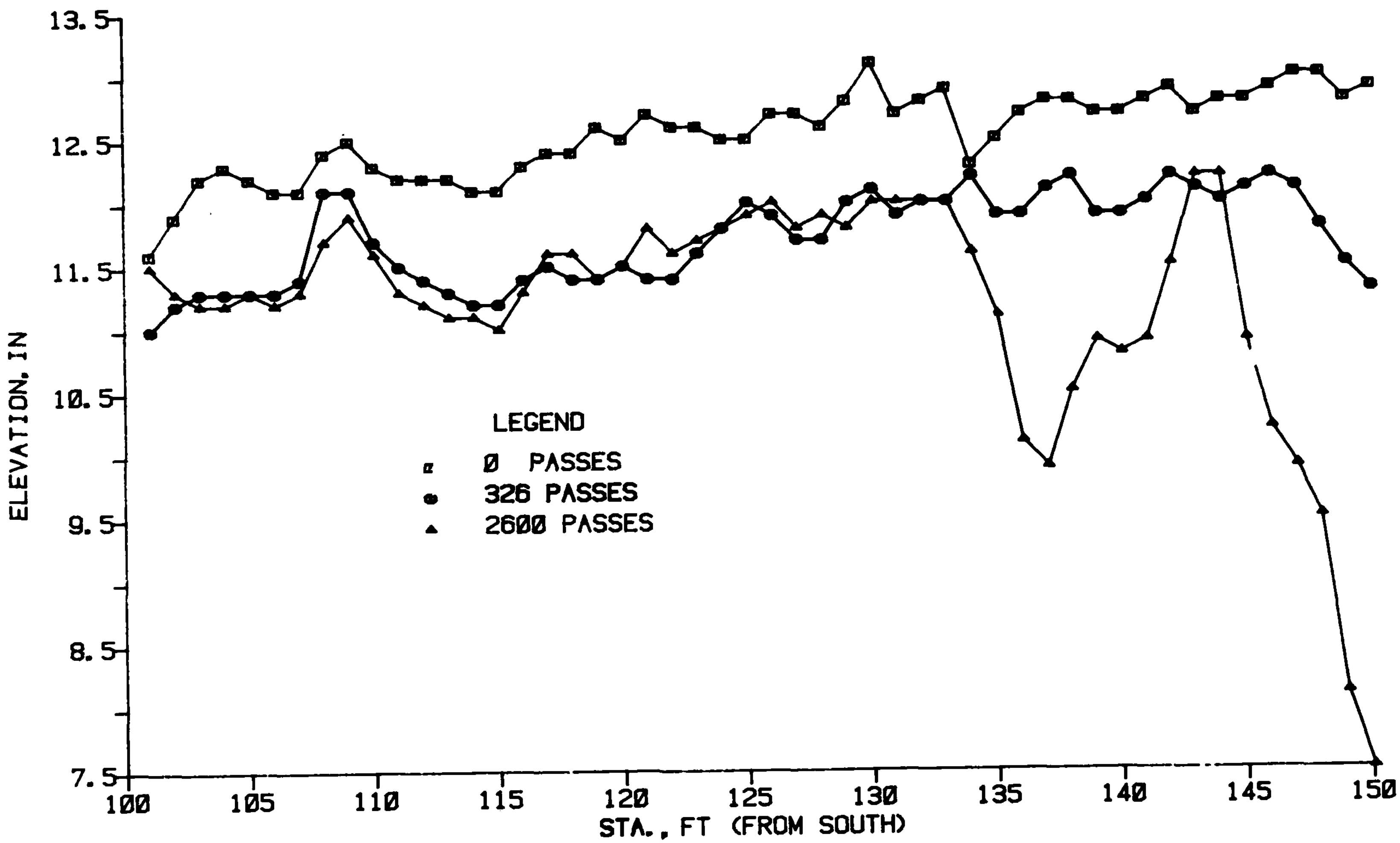


Figure A42. Center-line profile, lane 2, Item 3

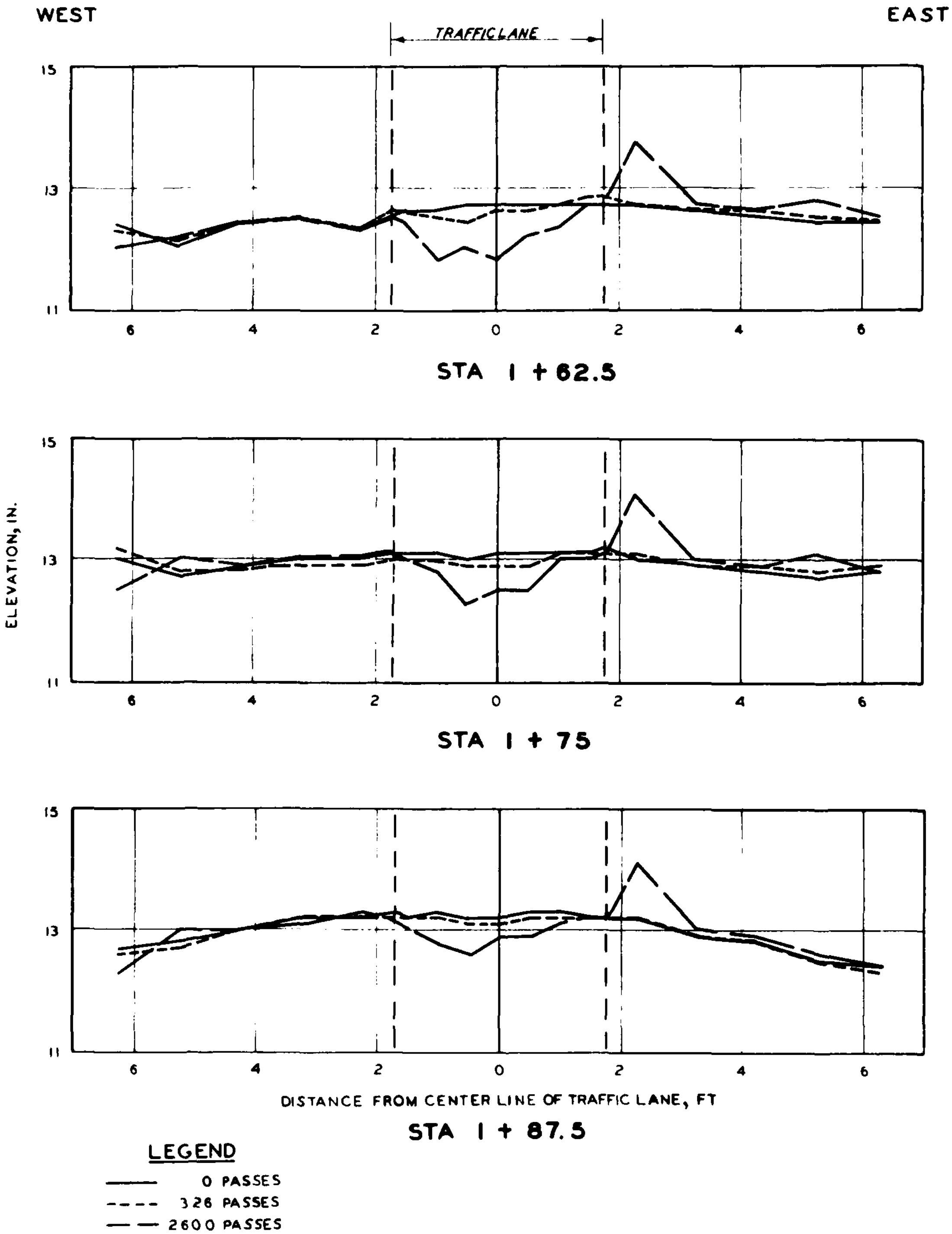


Figure A43. Cross sections, lane 2, Item 4

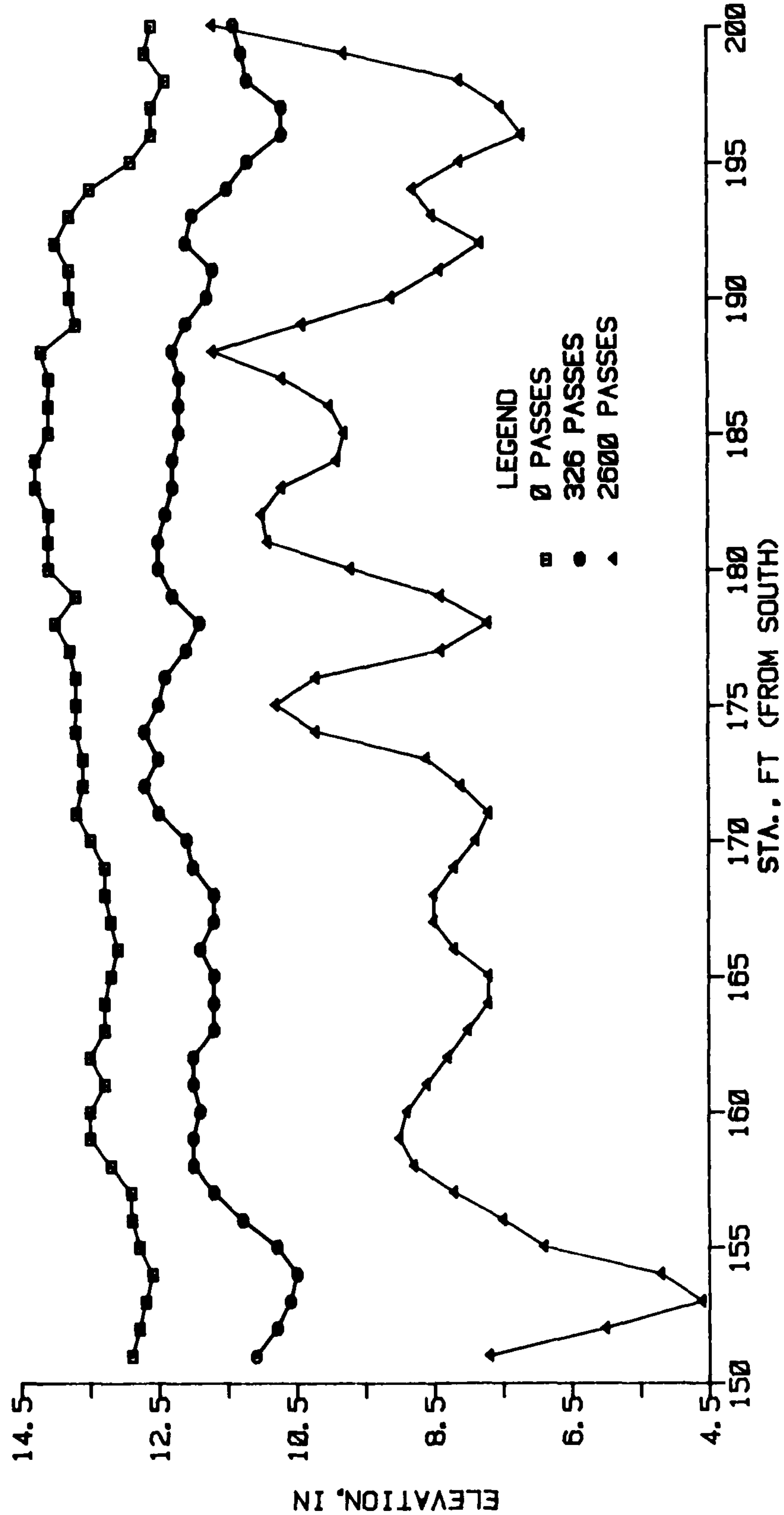


Figure A44. Center-line profile, lane 2, Item 4

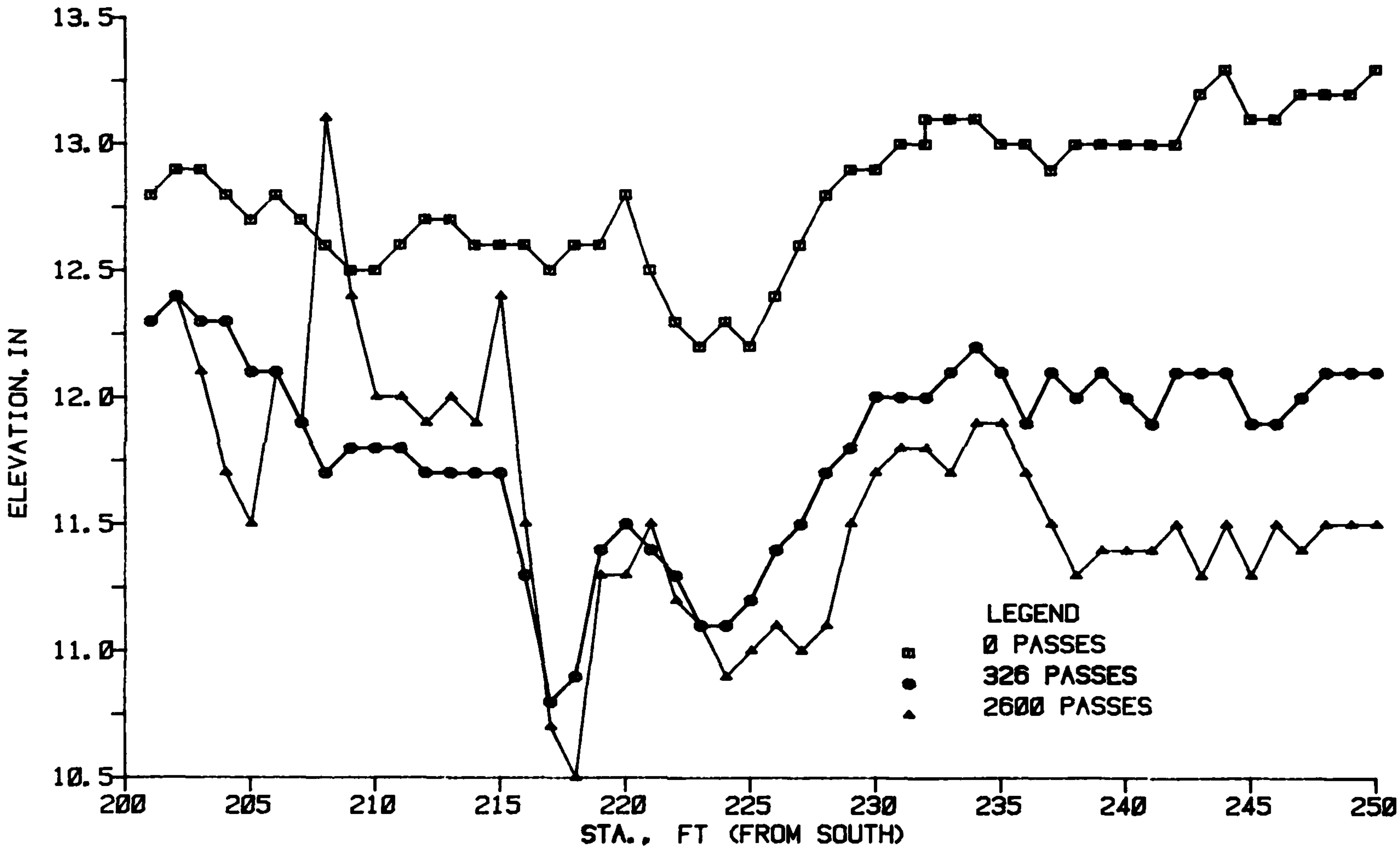


Figure A45. Cross sections, lane 2, Item 5

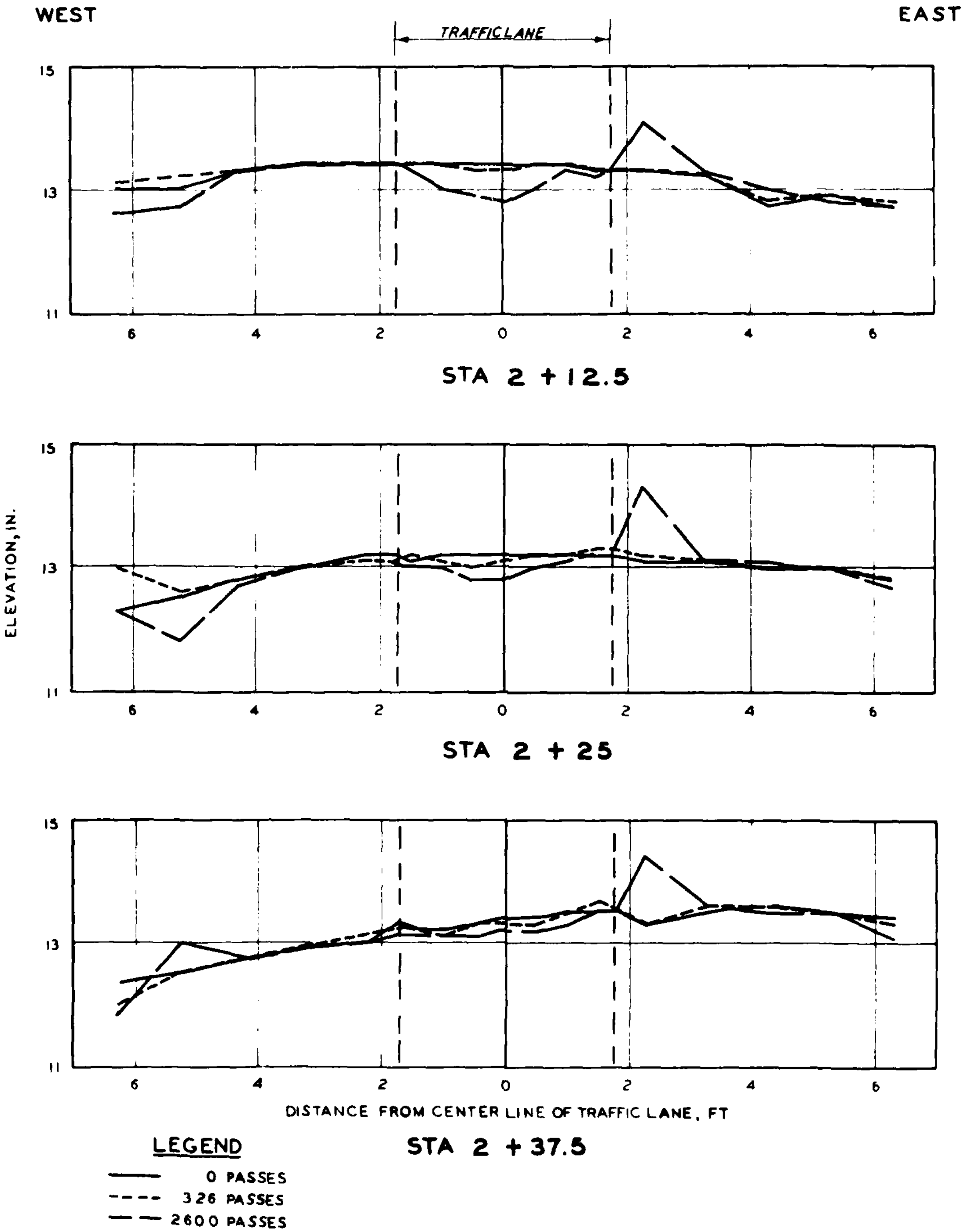


Figure A46. Center-line profile, lane 2, Item 5

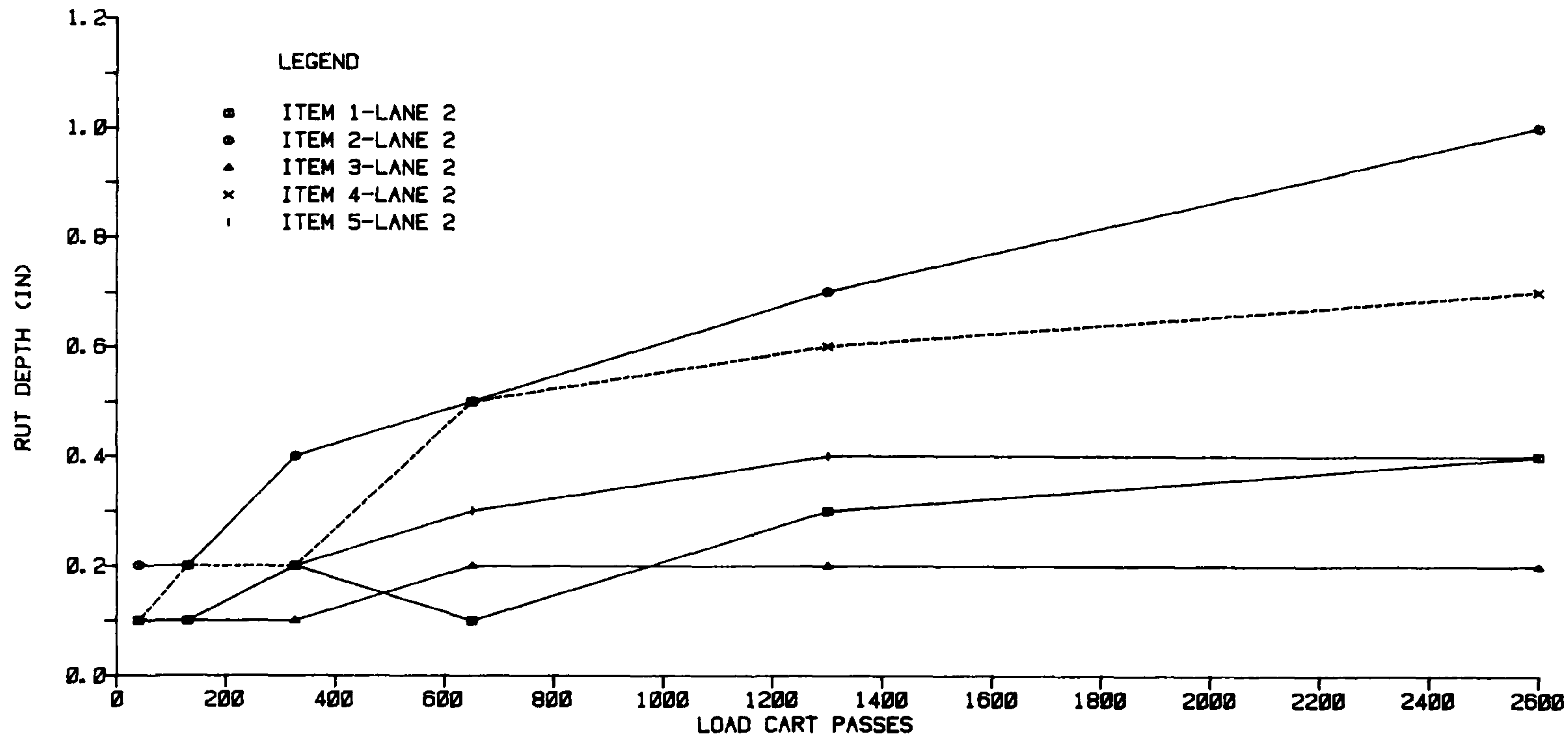


Figure A47. Rutting, lane 2

material was blown off of each item, and all cracks were mapped.

141. Item 1. Item 1 consisted of 43 in. of heavy clay surfaced with 29 in. of cement stabilized Blend I. Photographic coverage is provided in Photos A56 through A61.

142. The smooth tires had a grinding type effect on the stabilized material. Surface wear resulted in the accumulation of loose material in the wheel path as evidenced in the photos. A close-up of the surface after 2,600 passes is provided in Photo A59.

143. The majority of the cracking occurred after 130 passes. All cracks were mapped as far into the wheel path as possible. The loose material was not removed from the surface until after 2,600 passes. Even though badly cracked, the stabilized material was still firm and stable under traffic. As the cracks opened wider during traffic, the material did not show any signs of breaking up or moving under the load. A vertical cut through the 29 in. of stabilized Blend I is shown in Photo A61. Lamination can be seen, and apparently there was little or no bonding between the layers. The paint from crack mapping shows clearly that only the top 6-in. lift was cracked.

144. An average rut depth of 0.4 in. was obtained after 2,600 load cart passes. Cross sections are plotted in Figure A37 for sta 0+12.5, 0+25.0, and 0+37.5 at pass levels of 0, 326, and 2,600. A center-line profile is shown in Figure A38.

145. Item 2. Item 2 consisted of 60 in. of Blend II surfaced with 12 in. of cement stabilized Blend II. Photographic coverage is provided in Photos A62 through A66. Culvert pipes 7 through 12 were located in this item.

146. The abrasive action of the tires was more severe on Blend II than Blend I in Item 1. Approximately 1 in. of loose material was observed along the center line after 130 passes. Close-ups of the surface condition at 2,600 passes can be seen in Photo A65. The surface was rough and washboarding after 650 passes.

147. Cracks began opening outside the wheel path at several of the pipe locations after 40 passes. The presence of a substantial amount of loose material made it impossible to map the cracks inside the wheel path. Even after the material was blown off the item, many of the cracks were still not visible and had apparently been filled by the finer material.

148. As in Item 1, the surface was still stable under traffic after 2,600 passes. An average rut depth of 1.0 in. was obtained during traffic.

Cross sections are plotted for sta 0+62.5, 0+75.0, and 0+87.5 in Figure A39 at 0, 326, and 2,600 passes. A center-line profile is shown in Figure A40.

149. Item 3. Item 3 consisted of 60 in. of Blend II (CBR = 15) surfaced with 12 in. of lean mix concrete. Photos A67 through A71 show the performance during traffic.

150. The wearing or scrubbing action of the tires left fines loose along the center line and exposed aggregate on the surface of the concrete. After 1,300 passes, some of the aggregate itself was loosened. Photo A70 is a close-up of the surface after 2,600 passes.

151. Cracking was first observed at 130 passes. Transverse cracks had formed in each of the four slabs. Cracking increased with further traffic application, and some of the cracks had begun to spall at 650 passes. However, the slabs were still stable. The cracks began to open wider after 1,300 passes. After 2,600 passes, the slabs were still intact although there were numerous cracks.

152. An average rut depth or change in surface elevation of 0.7 in. was obtained after 2,600 load cart passes. Cross sections are plotted for sta 1+12.5, 1+25.0, and 1+37.5 in Figures A41 for 0, 326, and 2,600 passes. A center-line profile is presented in Figure A42.

153. Item 4. Item 4 consisted of 60 in. of Blend II (CBR = 15) surfaced with 12 in. of cement stabilized Blend I. Photographic coverage of the performance during traffic is provided in Photos A72 through A76.

154. The scrubbing action of the tires chewed away the surface of the stabilized material as shown by the close-up in Photo A75. A crack had formed at the south end of the item at 40 passes. Several cracks were observed along the edges of the wheel path after 130 passes. The loosening of material along the center line left the surface uneven and quite rough after 650 passes. Mapping of cracks within the wheel path was not possible. Many cracks were present afer 2,600 passes, but the stabilized Blend I was still stable and functional.

155. An average rut depth/surface loss of 0.7 in. was obtained during traffic. Cross sections are presented in Figure A43 for sta 1+62.5, 1+75.0, and 1+87.5 at 0, 326, and 2,600 passes. A center-line profile is plotted in Figure A44.

156. Item 5. Item 5 consisted of 56 in. of silt surfaced with 16 in. of cement stabilized Blend II. Photos A77 through A81 show the performance of this item throughout traffic.

157. A close-up in Photo A80 shows the surface condition after 2,600 passes. The wearing action of the tires could be seen as early as 40 passes and the surface was already uneven and rough at that point. Few cracks were noted during the early stages of traffic. Cracks began to form along the edges of the wheel path at 650 passes. Crack mapping was not possible inside the wheel path. After 2,600 passes the surface was cracked and rough but still structurally functional.

158. An average rut depth/surface loss of 0.4 in. occurred with the application of 2,600 load cart passes. Cross sections are plotted for sta 2+12.5, 2+25.0, and 2+37.5 at pass levels of 0, 326, and 2,600 in Figure A45. A center-line profile is shown in Figure A46.

Lane 3

159. Lane 3 was trafficked during the period 7 to 17 April 1981. Cross-section and profile data taken at 0, 326, and 2,600 passes are presented in Figures A48 through A57. Rut depths are tabulated in Table A19 and plots of rut depth versus load cart passes are provided in Figure A58.

160. Item 1. Item 1 consisted of 43 in. of heavy clay (CBR = 5) surfaced with 29 in. of crushed limestone. Photographic coverage showing the performance of this item during traffic is provided in Photos A82 through A84.

161. The crushed stone performed very well under traffic. An average rut depth of only 0.3 in. was recorded after 2,600 load cart passes. Raveling under the smooth tires was minimal. The surface began to get a little rougher at 1,300 passes but was still relatively smooth after all traffic had been applied. No cracks were noticeable after 2,600 passes. Cross sections are plotted for sta 0+12.5, 0+25.0, and 0+37.5 at pass levels of 0, 326, and 2,600 in Figure A48. The center-line profile is shown in Figure A49.

162. Item 2. Item 2 consisted of 60 in. of Blend II (CBR = 15) surfaced with 12 in. of crushed limestone. Photos A85 through A87 show the surface before traffic and after 326 and 2,600 passes.

163. The surface appeared to be looser and more uneven during the initial traffic than had Item 1. However, the condition of the surface changed very little as more traffic was applied, and the item performed very well. Some minor raveling and degradation occurred at the surface, but overall the smooth tires presented no serious problems. An average rut depth of 0.6 in. was obtained after 2,600 passes. Cross sections are plotted for sta 0+62.5, 0+75.0, and 0+87.5 at pass levels of 0, 326, and 2,600 in Figure A50. A

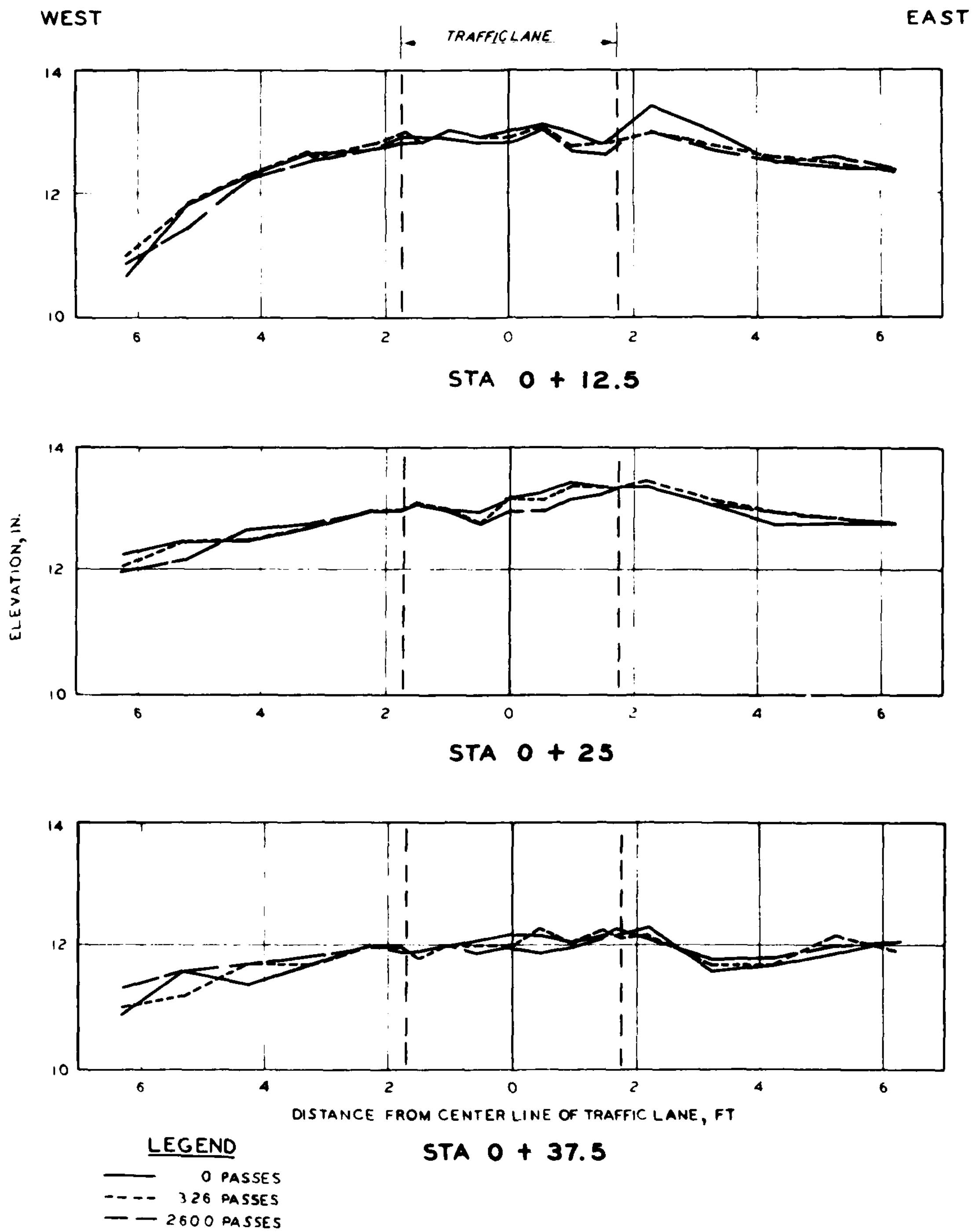


Figure A48. Cross sections, lane 3, Item 1

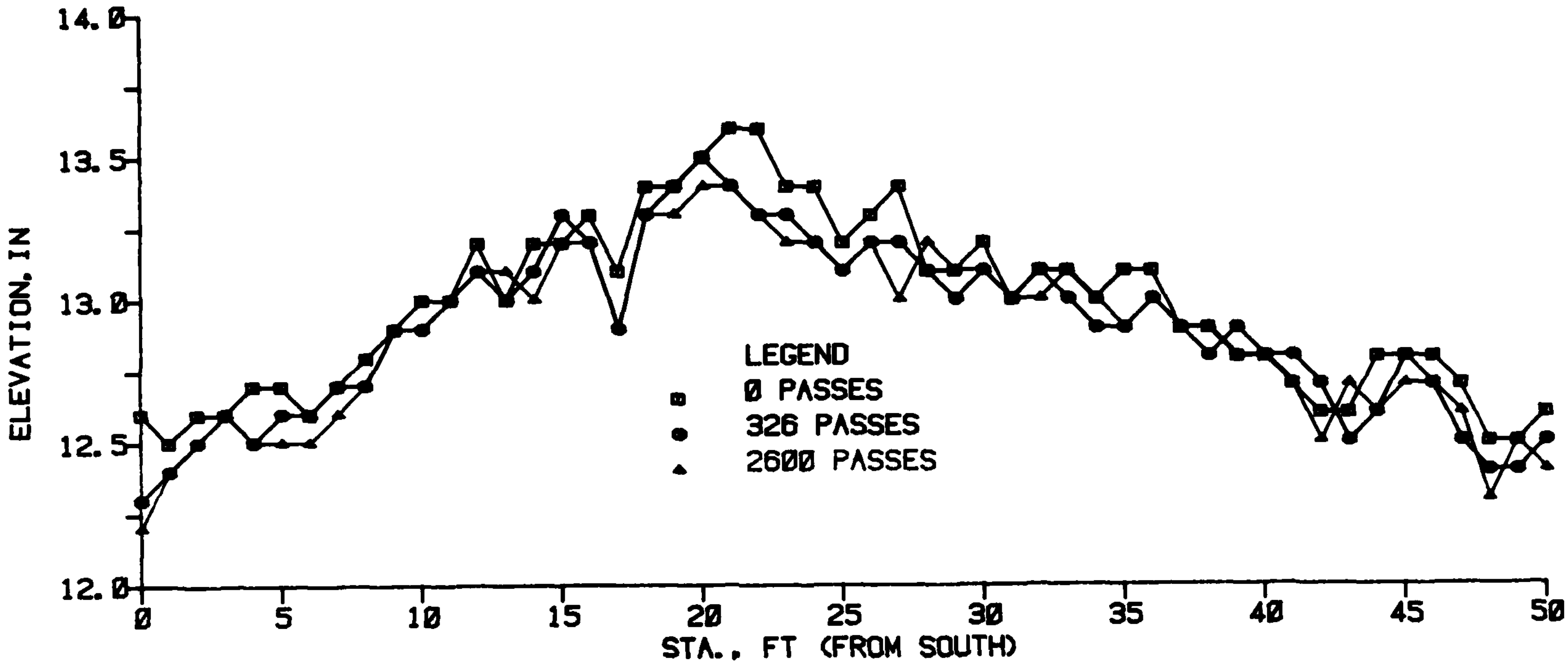


Figure 449. Center-line profile, lane 3, Item 1

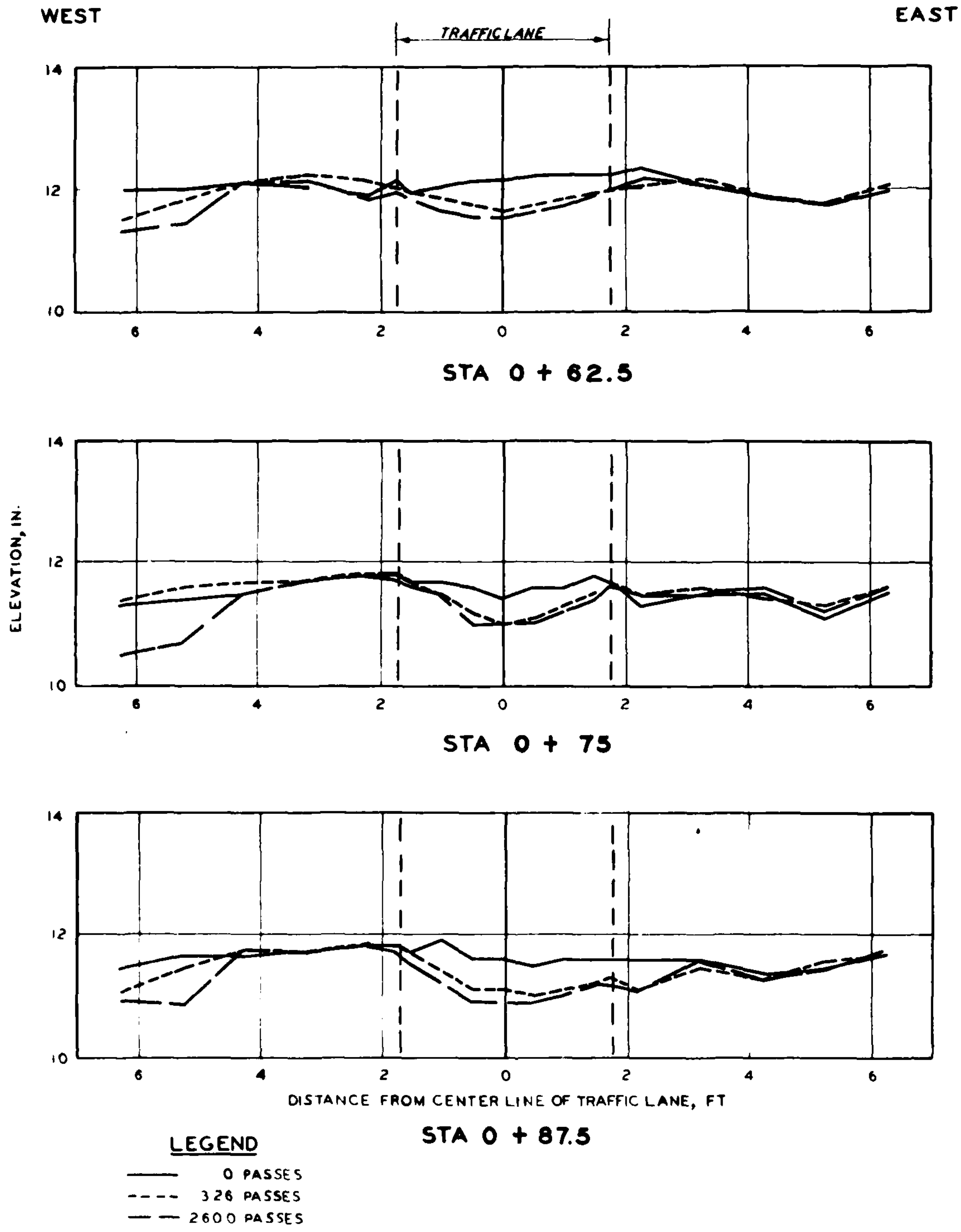


Figure A50. Cross sections, lane 3, Item 2

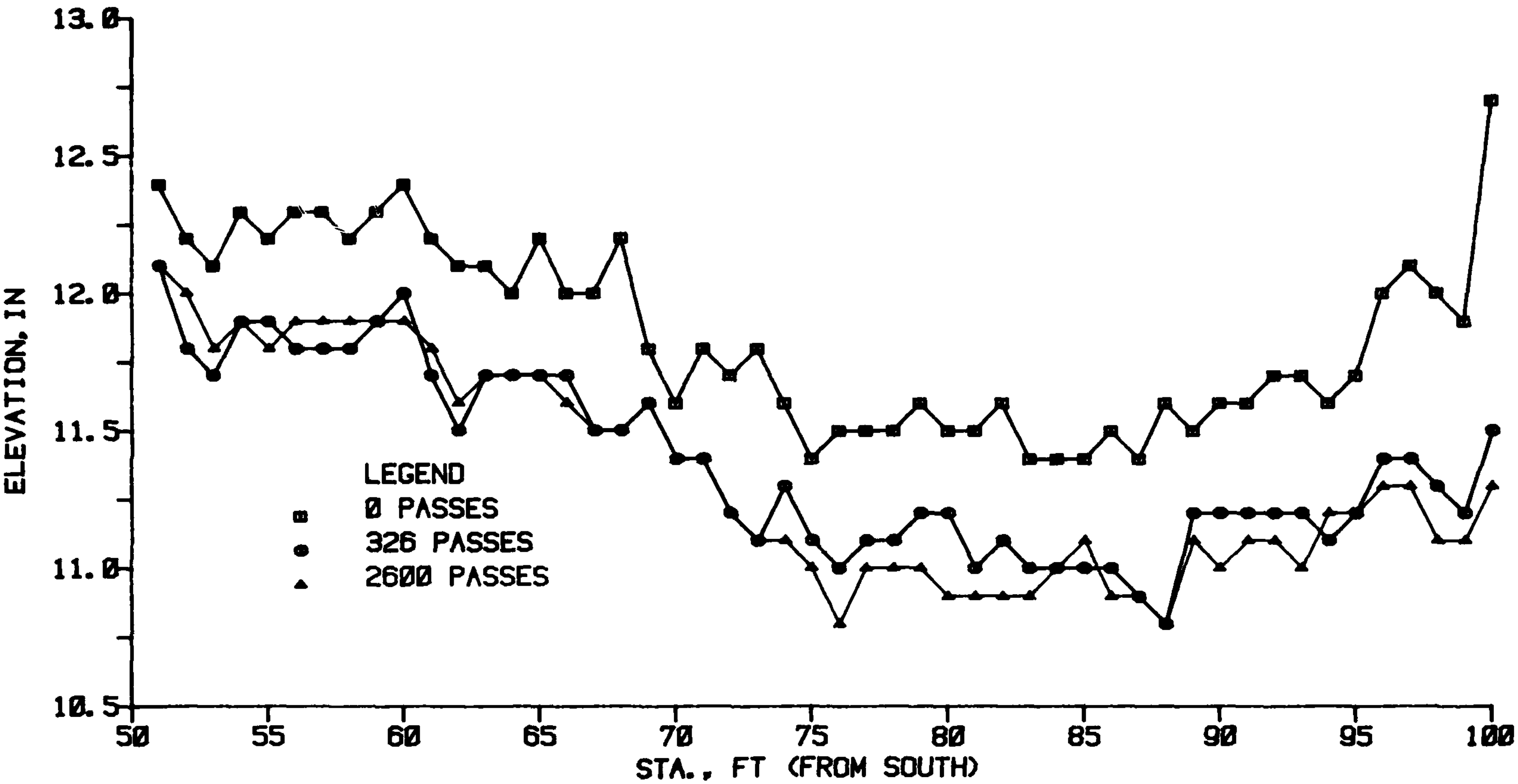


Figure A51. Center-line profile, lane 3, Item 2

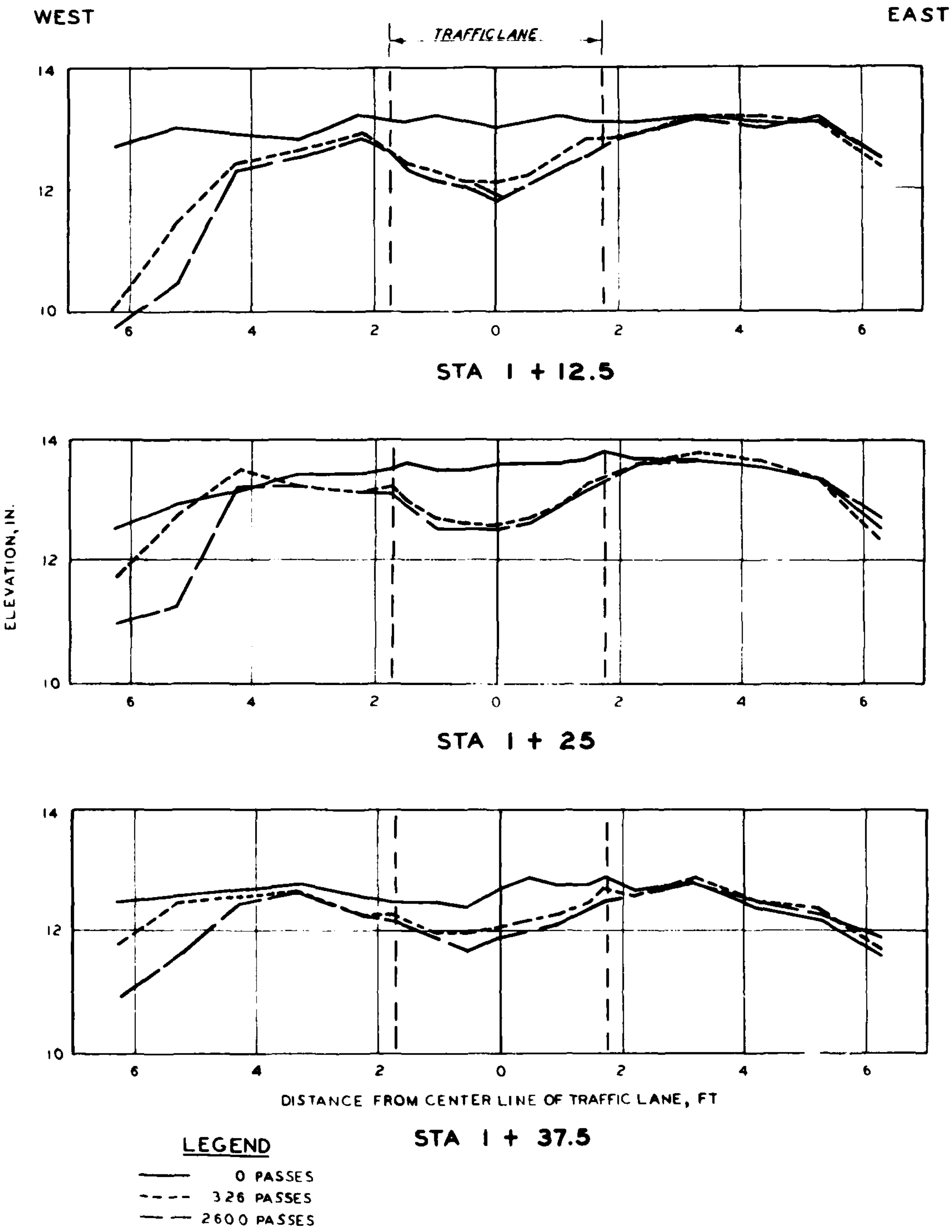


Figure A52. Cross sections, lane 3, Item 3

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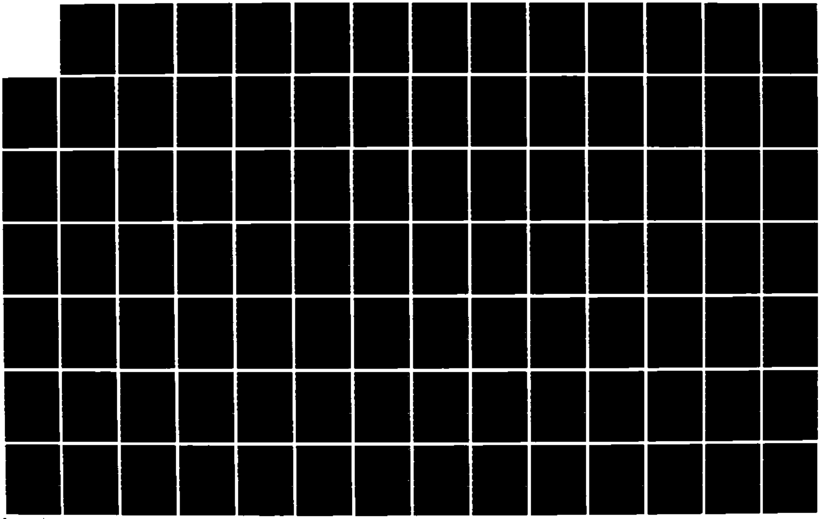

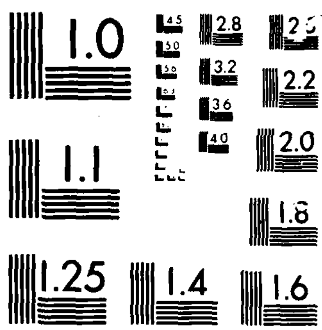

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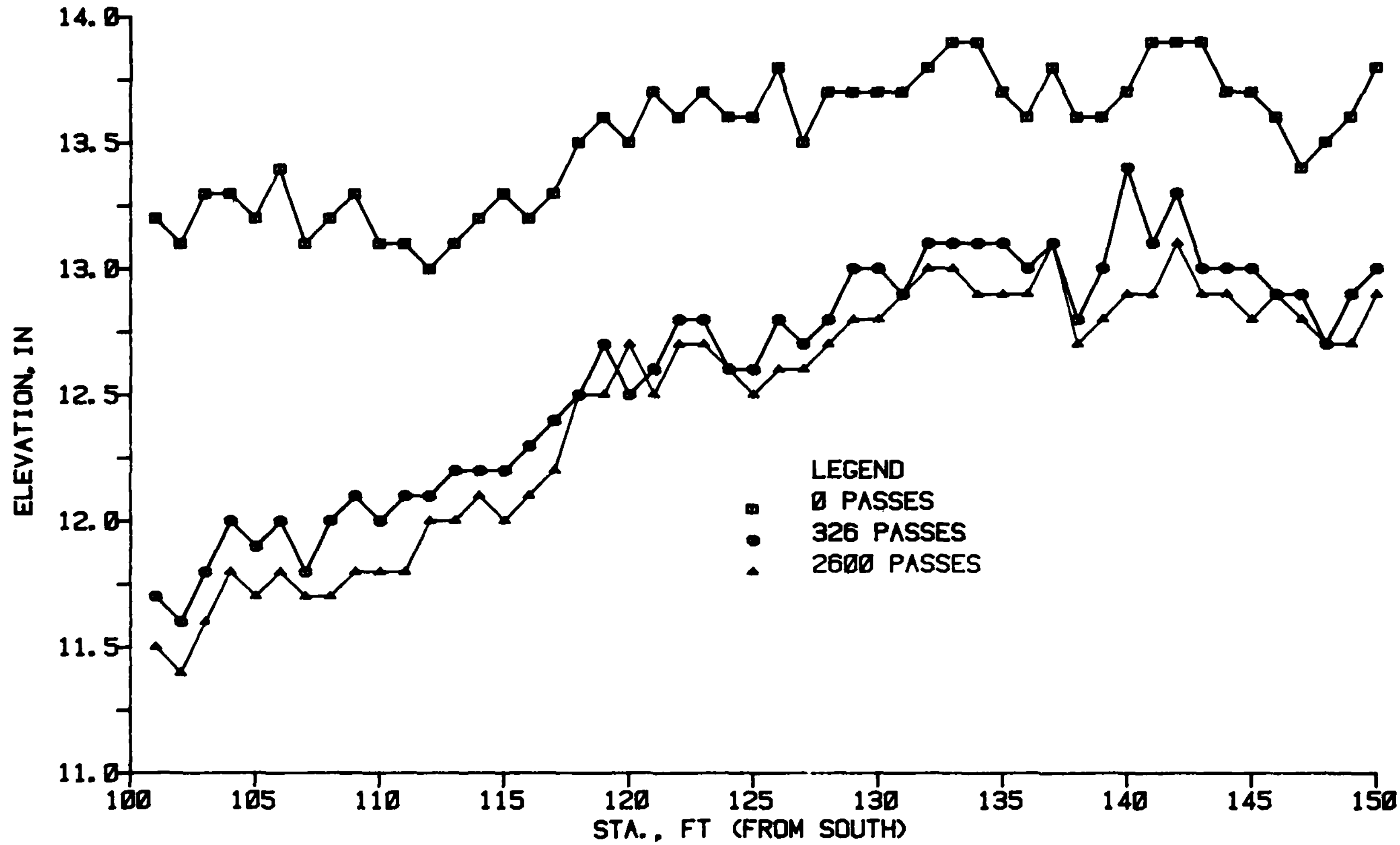


Figure A53. Center-line profile, lane 3, Item 3

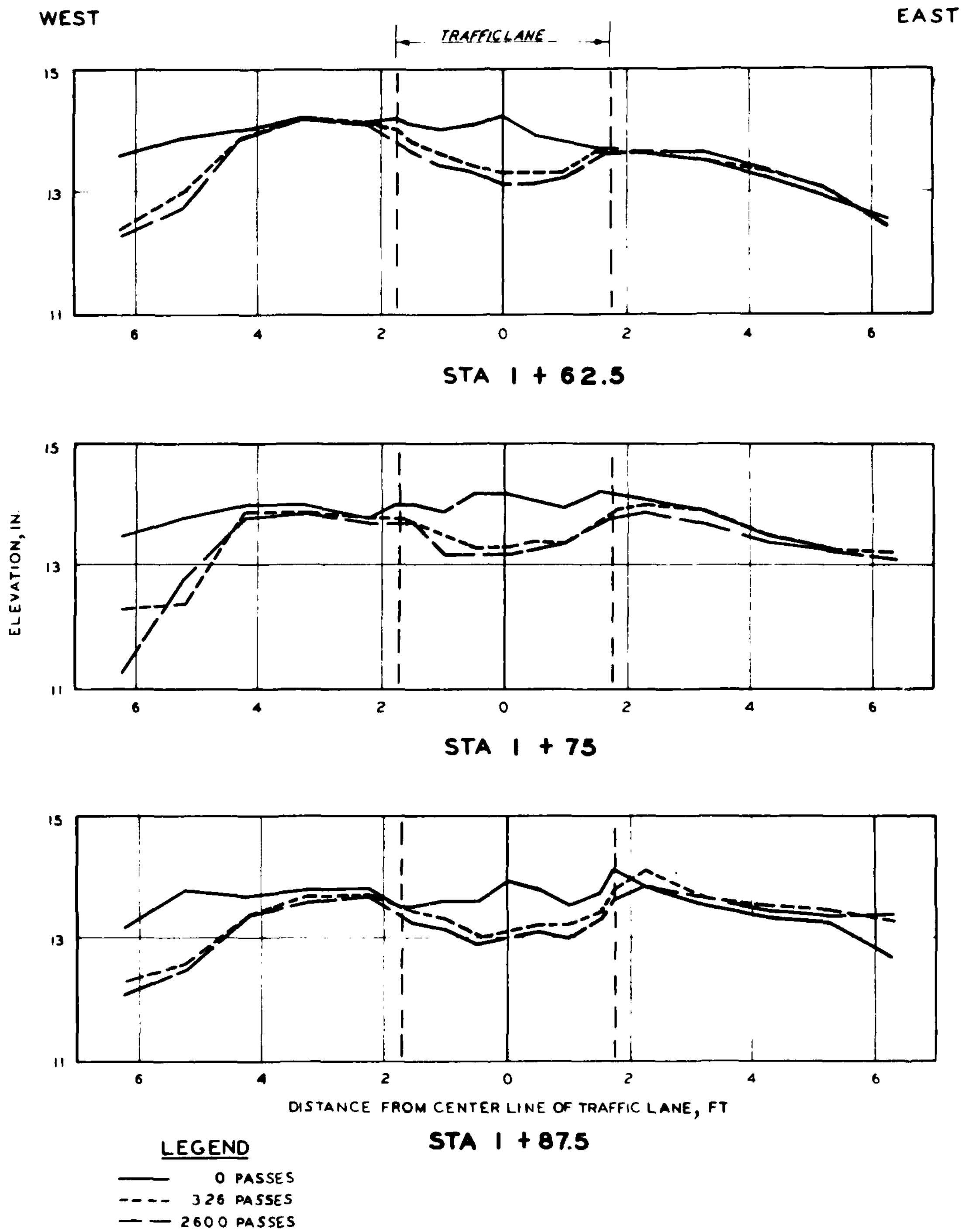


Figure A54. Cross sections, lane 3, Item 4

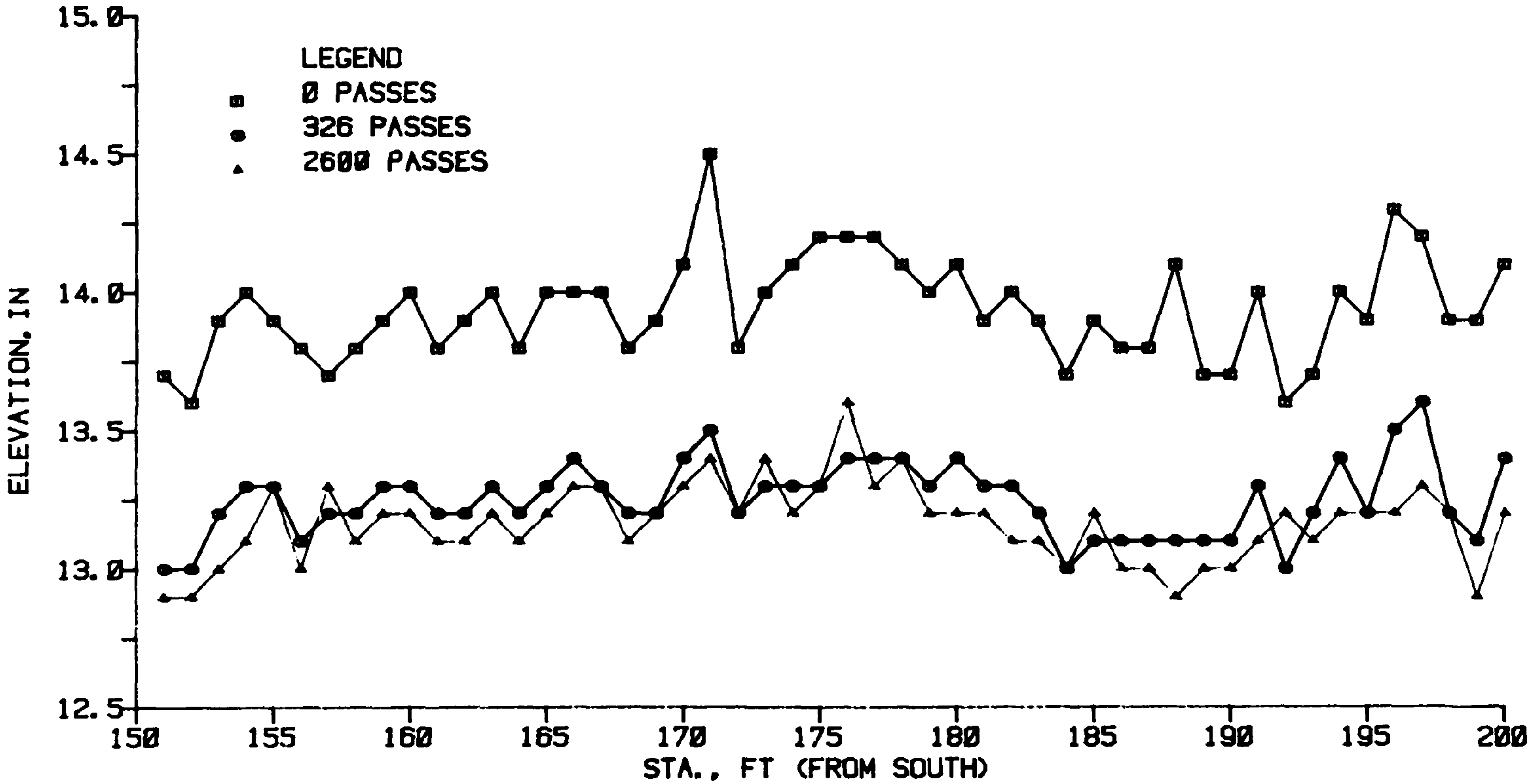


Figure A55. Center-line profile, lane 3, Item 4

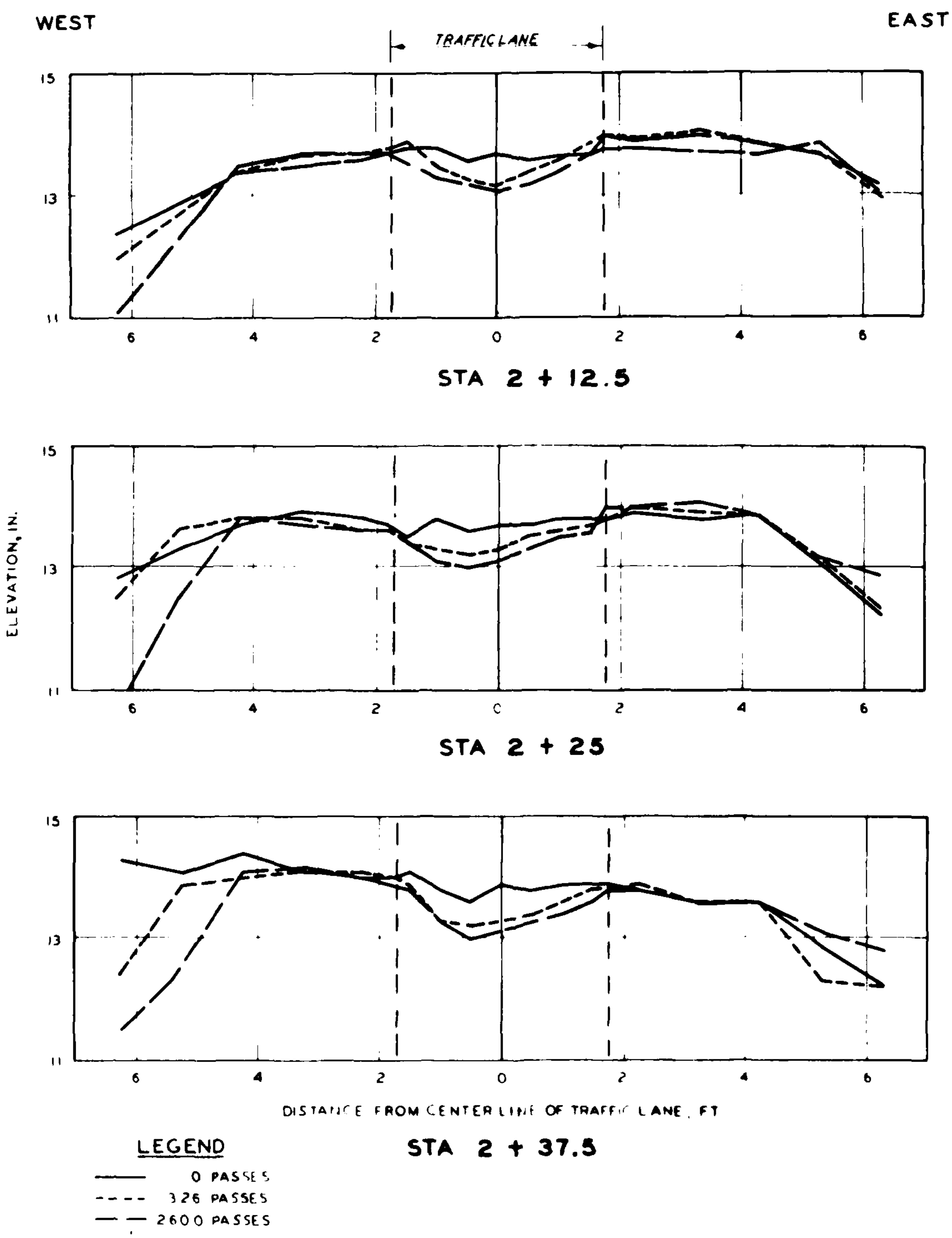


Figure A56. Cross sections, lane 3, Item 5

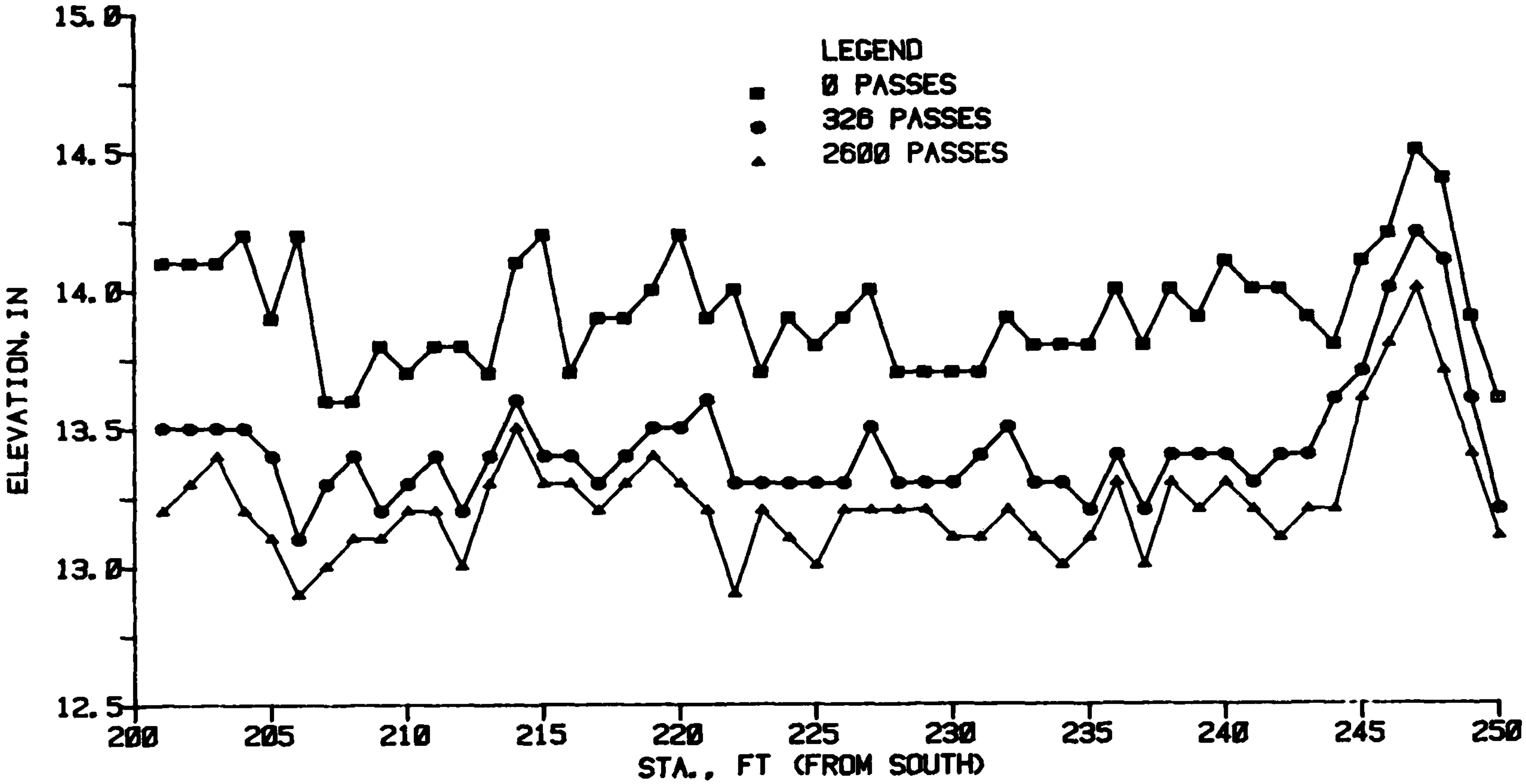


Figure A57. Center-line profile, lane 3, Item 5

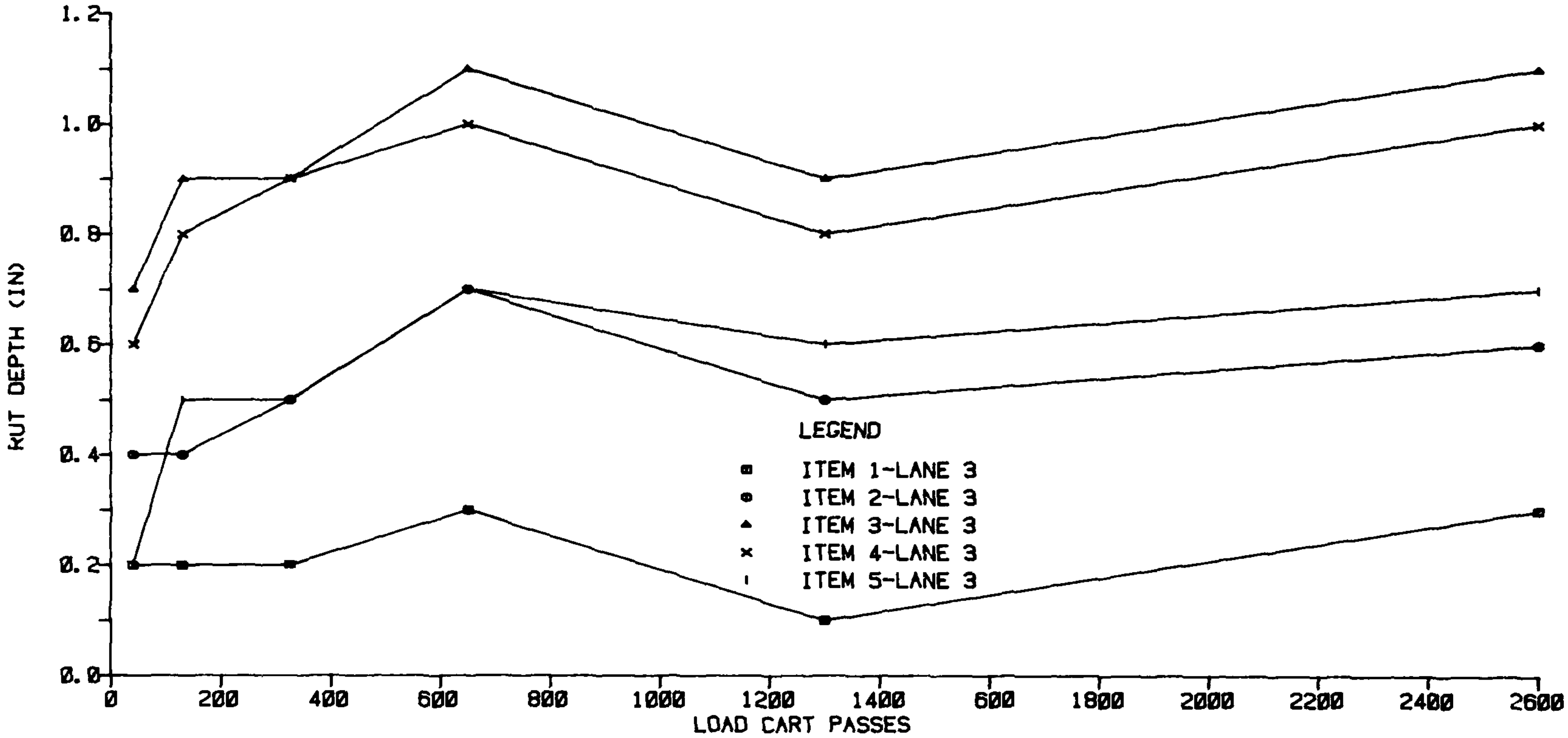


Figure A58. Rutting, lane 3

center-line profile is provided in Figure A51.

164. Item 3. Item 3 consisted of 6 in. of Blend II (optimum moisture-density) over 66 in. of Blend II (CBR = 15) and surfaced with a double-bituminous surface treatment. Photographic coverage of the traffic tests are provided in Photos A88 through A90.

165. The performance of the DBST under traffic was excellent. An average rut depth of only 1.1 in. was obtained with the application of 2,600 load cart passes. The majority of this rut was the result of densification during the early stages of traffic. No structural problems were encountered, and the surface remained intact and smooth throughout the tests.

166. Cross sections are plotted for sta 1+12.5, 1+25.0, and 1+37.5 at pass levels of 0, 326, and 2,600 in Figure A52. A center-line profile is provided in Figure A53.

167. Item 4. Item 4 consisted of 12 in. of Blend I (optimum moisture-density) over 60 in. of Blend II (CBR = 15) and a single-bituminous surface treatment. Photos A91 through A93 show the performance of this item during traffic.

168. The SBST held up very well under traffic. There were no structural problems, and the surface was still smooth and highly functional after 2,600 passes. A close-up showing the structure of the SBST is shown in Photo A94 (taken after 2,600 passes). An average rut depth of 1.0 in. was determined after all traffic was completed. Densification during the initial passes accounted for most of the rut.

169. Cross sections are plotted in Figure A54 for sta 1+62.5, 1+75.0, and 1+87.5 at pass levels of 0, 326, and 2,600. A center-line profile is provided in Figure A55.

170. Item 5. Item 5 consisted of 16 in. of Blend II (optimum moisture-density) over 56 in. of silt and a single-bituminous surface treatment. Photos A95 through A97 show the performance of this item with traffic.

171. The performance of this item under traffic was good. Bleeding of asphalt to the surface was observed in several areas at 130 passes. The condition worsened with more traffic giving the surface a rougher, more uneven appearance than Item 3 or 4. However, the average rut depth of 0.7 in. after 2,600 passes was less than either of the other surface treated items. The SBST remained intact and was still functional after all traffic tests were completed.

172. Cross sections are plotted in Figure A56 for sta 2+12.5, 2+25.0, and 2+37.5 at pass levels of 0, 326, and 2,600. A center-line profile is shown in Figure A57.

Posttraffic Testing and Sampling

CBR, density, and moisture content

173. Nuclear water contents and densities were determined and CBR's measured on the surface of each item in traffic lanes 1, 2, and 3 after traffic was completed. Data from three locations within each item are included in Table A11.

174. Test pits were excavated in each item of all three traffic lanes immediately following the completion of all traffic testing. Test pits were located so that tests could be performed both in and out of the wheel path. Nuclear water contents and densities, oven-dried water contents, and CBR's were obtained at the surface and at depths of 6, 12, 18, 24, 36, 48, 60, and 72 in. Data obtained from the 15 test pits are summarized in Table A20.

175. CBR values shown are an average of at least three determinations, and nuclear densities and moisture contents are averages of at least two values.

Posttraffic plate bearing results

176. Plate bearing tests were performed on the surface of Items 1 through 5 in traffic lanes 1 and 3 after 2,600 load cart passes. The bituminous surface treatments were removed from Items 3, 4, and 5 in lane 3 before the tests were run. Results are included in Table A5.

Concrete cores

177. Three 6-in.-diam cores were taken from the lean mix concrete in Item 3, lane 2, after 2,600 load cart passes. Tensile splitting tests were performed on each core by personnel of the WES Concrete Laboratory. The results were as follows:

Station, ft	In or Out of Wheelpath	Compressive Strength, psi
1+05	In	1,810
1+19	In	1,420
1+41	Out	1,610
		Average = 1,613

178. Attempts to obtain samples from the cement-stabilized materials were unsuccessful. The larger aggregate was broken loose rather than cut, and the cores would not stay together.

Table A1

Summary of QD Standard Triaxial Test Results

Test No.	Desired Initial Specimen Conditions: Water Content ω %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d %	Initial Specimen Conditions*: Water Content ω_i %	Initial Specimen Conditions*: Dry Unit Weight γ_{d_i} pcf	Initial Specimen Conditions*: Void Ratio e_i	Initial Specimen Conditions*: Saturation S_i %	σ_{3_c} psi	Void Ratio Prior to Shear	Shear Data**: $(\sigma_1 - \sigma_3)_f$ σ_{d_f} psi	Shear Data**: σ_1/σ_3	Shear Data**: ε_{1_f} %	Shear Data**: Time to Failure min	ϕ deg	C psi	Final Water Content %
						Blend I									
1	3.0	120.0	3.2	120.7	0.386	22.4	5.0	0.386	39.0	8.80	1.2	2	33.0	7.1	3.2
2	(CE12 Opt. ω - 4.7%)	(93% CE12 $\gamma_{d_{max}}$)	3.4	119.9	0.395	22.9	10.0	0.393	48.8	5.88	2.2	3			3.3
3			3.3	119.8	0.396	21.6	20.0	0.395	73.7	4.69	2.9	4			3.2
4			3.3	119.5	0.400	22.3	40.0	0.393	121.9	4.04	5.9	7			3.2
						Blend II									
1	3.0	120.0	2.8	122.9	0.355	21.3	5.0	0.355	31.1	7.22	2.2	4	36.9	3.7	2.7
2	(CE12 Opt. ω - 4.0%)	(89% CE12 $\gamma_{d_{max}}$)	2.8	122.7	0.358	21.1	10.0	0.358	46.3	5.63	2.9	5			2.7
3			2.8	123.3	0.352	21.2	20.0	0.349	75.3	4.77	4.4	9			2.7
4			2.8	123.4	0.350	20.6	40.0	0.345	134.9	4.37	5.9	8			2.7
						Limestone									
1	3.0	140.0	3.0	139.5	0.216	38.3	5.0	0.216	103.1	21.62	2.5	3	Curved strength		3.0
2			2.9	141.5	0.200	39.6	10.0	0.200	149.8	15.98	3.0	4	envelope		2.9
3			2.6	140.0	0.212	33.9	20.0	0.211	231.2	12.56	2.9	7			2.6
4			2.7	140.8	0.206	35.9	40.0	0.203	334.6	9.37	3.6	9			2.7
						Clay (CH)†									
1	30.0	90.0	30.2	85.8	0.963	84.7	5.0	0.952	26.4	6.28	15.0	2	3.2	12.3	30.1
2	(CE12 Opt. ω + 4.7%)	(96% CE12 $\gamma_{d_{max}}$)	30.3	86.9	0.939	86.7	10.0	0.913	27.6	3.76	15.0	2			30.2
3			30.3	87.5	0.926	88.3	20.0	0.885	28.6	2.43	15.0	2			30.2
4			30.2	88.3	0.908	89.8	40.0	0.853	31.0	1.78	15.0	2			29.9
						Silt (ML)†									
1	15.5	104.0	15.3	104.0	0.602	67.9	5.0	0.601	44.4	9.88	3.2	3	42.3	7.2	14.9
2	(CE12 Opt. ω - 30%)	(100% CE12 $\gamma_{d_{max}}$)	15.5	103.6	0.609	67.8	10.0	0.606	57.8	6.78	3.7	4			15.3
3			15.4	102.9	0.620	66.3	20.0	0.613	82.7	5.14	4.0	6			15.3
4			15.2	103.7	0.607	66.9	40.0	0.596	141.7	4.54	6.4	10			15.2

* All specimens were compacted using impact compaction. Limestone specimens were compacted in six layers, whereas, all other specimens were compacted in nine layers. As compacted, specimen diameters and heights were 5.9 and 13.6 in., respectively.

** Specimens were sheared with drainage valves open using controlled stress after essentially reaching equilibrium under the desired chamber pressure, σ_3.

† Specimens were compacted in six layers using kneading compaction. As compacted, specimen diameters and heights were 2.9 and 6.0 in., respectively.

Table A2

Summary of Resilient Modulus Test Results

Test No.	Desired Initial Specimen Conditions: Water Content ω %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d pcf	Initial Specimen Conditions*: Water Content ω_i %	Initial Specimen Conditions*: Dry Unit Weight γ_{d_i} pcf	Initial Specimen Conditions*: Void Ratio e_i	Initial Specimen Conditions*: Saturation S_i %	σ_{3_c} psi	Void Ratio Prior to First Pulse	Pulse: σ_1/σ_3	Pulse: $(\sigma_1 - \sigma_3)$ σ_{dp} psi	After 100 Pulses**: M_r psi	After 100 Pulses**: Permanent ϵ_1 %	After 100 Pulses**: Accumulative	After 100 Pulses**: Resilient μ	Final Water Content ω_f %
								Limestone							
1	3.0	140 0	2.5	141.5	0.199	34.0	5.0	0.198	(3.0)†	(9.9)†	(223,864)†	(0.08)†		1.25†	2.5
								0.197	2.0	5.0	169,671	0	0.08	0.94	
								0.197	3.0	9.9	192,351	0	0.08	1.07	
								0.197	4.0	14.8	143,548	0.02	0.10	0.94	
								0.197	4.9	19.7	133,878	0.04	0.14	1.03	
							10.0	0.195	2.0	9.9	269,919	0	0.14	0	
								0.195	3.0	19.8	224,133	0	0.14	0.78	
								0.195	4.0	29.6	211,908	0.01	0.15	0.99	
								0.194	4.9	39.4	191,254	0.05	0.20	0.81	
							20.0	0.192	2.0	19.6	534,332	0	0.20	-- ††	
								0.192	3.0	39.3	486,498	0	0.20	1.03	
								0.192	4.0	59.3	335,762	0.04	0.24	0.86	
								0.191	5.0	79.0	275,195	0.09	0.33	0.92	
							40.0	0.188	2.0	39.4	892,082	0	0.33	-- ††	
								0.188	3.0	79.0	447,267	0.02	0.35	0.78	
								0.187	4.0	118.4	356,980	0.08	0.43	0.75	
								0.186	5.0	158.0	345,063	0.21	0.64	0.85	
								Clay (CH)							
1	3.0	90.0	28.7‡	90.5‡	0.862‡	90.9‡	5.0	0.834	(3.0)†	(9.85)†	(6,619)†	(0.61)†	0.61	(0.21)†	28.7
								0.833	2.0	5.04	10,642	0.02	0.63	0.24	
								0.833	2.9	9.70	7,079	0.02	0.65	0.23	
								0.826	3.9	14.43	4,402	0.39	1.04	0.30	
								0.820	4.8	18.93	2,989	1.60	2.69	0.38	
							10.0	0.819	2.0	9.73	7,320	0.03	2.67	0.31	
								0.816	2.9	(19.11)‡‡	(3,087)‡‡	(0.39)‡‡	3.06	(0.39)‡‡	
								Silt (ML)							
1	15.5	104.0	15.5‡	102.6‡	0.624‡	66.2‡	5.0	0.618	(3.0)†	(9.9)†	(19,104)†	(0.15)†	0.15	(0.26)†	15.3
								0.617	2.0	5.0	23,227	0	0.15	0.39	
								0.617	3.0	10.0	20,970	0	0.15	0.41	
								0.617	4.0	14.9	19,046	0.05	0.20	0.35	
								0.616	5.0	19.8	19,469	0.11	0.31	0.38	
							10.0	0.614	2.0	10.1	21,786	0	0.31	0.06	
								0.614	3.0	19.9	22,441	0.02	0.33	0.25	
								0.614	4.0	29.6	21,263	0.10	0.43	0.28	
								0.612	4.9	39.4	21,251	0.42	0.85	0.39	
							20.0	0.609	2.0	19.8	32,006	0.01	0.86	0.31	
								0.609	3.0	39.5	30,663	0.03	0.89	0.26	
								0.608	4.0	59.1	29,548	0.21	1.10	0.32	
								0.636	4.9	77.5	28,821	1.68	2.78	0.42	
							40.0	0.601	2.0	39.8	46,887	0.02	2.80	0.28	
								0.600	3.0	79.1	45,951	0.06	2.86	0.30	
								0.598	4.0	119.1	44,936	0.51	3.37	0.36	
								0.594	4.8	(151.0)§	(26,752)§	(3.40)§	6.77	(0.46)§	

(Continued)

* Specimen was compacted in six layers using impact compaction. As compacted, specimen diameter and heights were [illegible] and [illegible] in., respectively.

** Repeated axial loading was initiated after specimen essentially reached equilibrium under the desired chamber pressure and [illegible]-psi seating deviator stress. Repeated loads were applied using a haversine wave form with load being on the specimen [illegible] sec and off [illegible] sec. Specimen drainage valves were open during application of chamber pressure and repeated loading.

† After [illegible] conditioning pulses.

†† Radial deformation was too small to measure with apparatus used.

‡ Specimens were compacted in six layers using kneading compaction. As [illegible] diameters and heights were [illegible] and [illegible] in., respectively.

‡‡ Test terminated at 8 pulses due to excessive axial deformation.

§ Test terminated at [illegible] pulses due to excessive axial deformation.

Table A2 (Concluded)

Test No.	Desired Initial Specimen Conditions: Water Content ω %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d pcf	Initial Specimen Conditions§§: Water Content w_i %	Initial Specimen Conditions§§: Dry Unit Weight γ_{d_i} pcf	Initial Specimen Conditions§§: Void Ratio e_i	Initial Specimen Conditions§§: Saturation S_i %	σ_{3c} psi	Void Ratio Prior to First Pulse	Pulse: σ_1/σ_3	Pulse: $(\sigma_1 - \sigma_3)$ σ_{dp} psi	After 100 Pulses: M_r psi	After 100 Pulses: Permanent ϵ_1 %	After 100 Pulses: Accumulative	After 100 Pulses: Resilient μ	Final Water Content ω_f %
							Blend I								
1	3.0	120.0	3.8	121.5	0.377	26.8	5.0	0.375	(3.0)†	(10.0)†	(43,860)†	(0.10)†	0.10	(0.24)†	3.7
								0.374	2.0	5.2	48,720	0	0.10	0.26	
								0.373	3.0	9.9	43,285	0	0.10	0.24	
								0.374	5.0#	19.7	33,505	0.13	0.23	0.26	
							10.0	0.372	2.0	9.9	53,970	0	0.23	0.37	
								0.371	3.0	19.8	45,665	0.01	0.24	0.22	
								0.371	4.0	29.8	39,675	0.12	0.36	0.24	
								0.370	5.0	39.8	38,620	0.36	0.72	0.42	
							20.0	0.367	2.0	19.8	53,155	0.01	0.73	0.19	
								0.367	3.[illegible]	39.8	57,952	0.04	0.[illegible]	0.24	
								0.367	4.0	59.4	52,152	0.32	1.09	0.27	
								0.363	4.9	78.6	43,764	2.02	[illegible].11	[illegible]	
							40.0	0.347	2.0	39.6	55,232	0.02	3.13	0.17	
								0.347	3.0	79.1	67,285	0.09	3.22	0.23	
								0.345	4.0	118.2	64,299	0.79	4.01	0.24	
								0.337	(4.0)#	(148.2)##	(20,117)##	(1.01)##	5.02	(0.48)##	
							Blend II								
1	[illegible]	120.0	2.9	122.5	0.360	21.7	5.0	0.358	(3.0)†	(10.2)†	(32,611)†	(0.14)†		(0.13)†	2.8
								0.356	2.0	5.2	31,240	0	0.14	0.25	
								0.356	3.1	10.3	32,695	0	0.14	0.22	
								0.356	4.1	15.4	30,149	0.07	0.21	0.24	
								0.356	5.2	20.5	31,861	0.13	0.34	0.31	
							10.0	0.355	2.1	10.5	43,393	0.01	0.35	0.23	
								0.355	3.0	20.5	42,290	0.02	0.37	0.29	
								0.354	4.0	30.6	40,904	0.11	0.48	0.26	
								0.353	5.0	40.0	42,468	0.53	1.01	0.29	
							20.0	0.350	2.0	20.8	60,483	0	1.01	0.20	
								0.350	3.1	41.6	59,222	0.05	1.06	0.27	
								0.348	4.1	62.5	56,799	0.56	1.62	0.29	
								0.343	5.1	80.9	60,981	2.02	3.64	0.31	
							40.0	0.332	2.0	41.8	97,930	0.01	3.65	0.29	
								0.333	3.1	83.3	88,730	0.10	3.75	0.29	
								0.331	4.0	120.2	88,721	0.74	4.49	0.33	
								0.323	5.0	161.4	98,569	3.95	8.44	0.44	

† After [illegible] pulses.

§§ [illegible] were [illegible] layers using impact compaction. As compacted, specimen diameters and heights were [illegible] and [illegible], respectively.

\# [illegible] was not performed.

\## [illegible] due to excessive deformation.

Table A3

Summary of Repeated Load Triaxial Test Results

Test No.	Desired Initial Specimen Conditions: Water Content w %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d pcf	Initial Specimen Conditions*: Water Content w_i %	Initial Specimen Conditions*: Dry Unit Weight γ_{d_i} pcf	Initial Specimen Conditions*: Void Ratio e_i	Initial Specimen Conditions*: Saturation S_i %	σ_{3_c} psi	Void Ratio Prior to First Pulse	Pulse: σ_1/σ_3	Pulse: $(\sigma_1 - \sigma_3)$ σ_{dp} psi	σ_{dp}/σ_{df}	After 100 Pulses**: M_r psi	After 100 Pulses**: Permanent ε_1 %	After 100 Pulses**: Accumulative	After 100 Pulses**: Resilient μ	Final Water Content w_f %
								Limestone								
1	3.0	140.0	2.8	142.6	0.190	40.7	5.0	0.188	5.04	20.2		72,364	0.24	0.24	0.49	2.8
								0.187	9.10	40.5		78,219	0.44	0.68	0.77	
								0.186	13.02	60.1		65,970	1.05	1.73	0.87	
								0.193	16.98	(79.9)†		(50,321)†	(0.94)†	2.67	(1.10)†	
2			2.6	140.6	0.207	33.6	10.0	0.205	3.96	29.6		87,451	0.12	0.12	0.18	2.6
								0.203	6.90	59.0		92,991	0.43	0.55	0.46	
								0.201	9.78	87.8		81,567	1.21	1.76	0.55	
								0.204	12.60	116.0		54,745	1.28	3.04	0.66	
3			2.5	142.5	0.191	36.0	20.0	0.188	3.29	45.8		124,576	0.17	0.17	0.26	2.5
								0.186	5.55	90.9		138,378	0.44	0.61	0.45	
								0.183	7.83	136.5		145,479	0.91	1.52	0.60	
								0.185	9.96	179.1		110,853	1.33	2.85	0.61	
4			2.6	141.7	0.198	36.1	40.0	0.189	2.67	66.8		202,050	0.20	0.20	0.37	2.6
								0.186	4.30	132.1		215,254	0.60	0.80	0.45	
								0.181	5.94	197.6		224,063	1.01	1.83	0.67	
								0.174	7.55	261.8		167,048	1.79	3.60	0.37	
								Clay (CH)								
1	30.0	90.0	30.2††	89.5††	0.883††	92.3††	5.0	0.876	2.00	5.0	0.19	8,641	0.19	0.19	0.38	30.0
								0.872	2.98	9.9	0.38	4,891	0.49	0.68	0.34	
								0.867	3.86	14.3	0.54	3,092	1.49	2.17	0.37	
								0.856	4.62	18.1	0.69	2,399	1.12	3.29	0.41	
2			28.5	90.8	0.856	89.8	10.0	0.844	1.52	5.2	0.19	6,862	0.16	0.16	0.27	28.0
								0.841	2.07	10.7	0.39	8,206	0.24	0.38	0.22	
								0.838	2.53	15.3	0.55	4,676	0.75	1.13	0.31	
								0.830	2.94	19.4	0.70	2,805	2.36	3.49	0.34	
3			29.9	91.1	0.850	94.9	20.0	0.835	1.27	5.4	0.19	12,824	0.01	0.01	0.33	29.8
								0.834	1.56	11.2	0.39	9,705	0.28	0.29	0.30	
								0.831	1.81	16.1	0.56	5,543	0.80	1.09	0.39	
								0.825	2.03	20.6	0.72	3,130	2.85	3.94	0.37	
4			29.1	91.3	0.845	92.9	40.0	0.801	1.15	6.3	0.20	33,241	0.15	0.15	0.59	28.9
								0.799	1.31	12.2	0.39	14,325	0.23	0.38	0.39	
								0.797	1.45	18.0	0.58	7,305	0.59	0.97	0.42	
								0.793	1.59	23.6	0.76	4,187	1.80	2.77	0.43	

(Continued)

* Specimens were compacted in six layers using impact compaction. As compacted, specimen diameters and heights were 5.9 and 13.6 in., respectively.

** Repeated axial loading was initiated after specimen essentially reached equilibrium under the desired chamber pressure and 4.0-psi seating deviator stress. Repeated loads were applied using a haversine wave form with load being on the specimen 0.3 sec and off 2.7 sec. Specimen drainage valves were open during application of chamber pressure and repeated loading.

† Loading stopped at 200 pulses due to excessive axial deformation.

†† Specimens were compacted in six layers using kneading compaction. As compacted, specimen diameters and heights were 2.9 and 6.0 in., respectively.

(Sheet 1 of 3)

Table A3 (Continued)

Test No.	Desired Initial Specimen Conditions: Water Content w %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d pcf	Initial Specimen Conditions: Water Content w_i %	Initial Specimen Conditions: Dry Unit Weight γ_{d_i} pcf	Initial Specimen Conditions: Void Ratio e_i	Initial Specimen Conditions: Saturation S_i %	σ_{3_c} psi	Void Ratio Prior to First Pulse	Pulse: σ_1/σ_3	Pulse: $(\sigma_1 - \sigma_3)$ σ_{dp} psi	σ_{dp}/σ_{df}	After 100 Pulses: M_r psi	After 100 Pulses: Permanent ϵ_1 %	After 100 Pulses: Accumulative	After 100 Pulses: Resilient μ	Final Water Content w_f %
								Silt (ML)								
1	15.8	104.0	15.5††	104.5††	0.594††	69.9††	5.0	0.592	2.78	8.9	0.20	32,088	0.05	0.05	0.40	15.5
								0.592	4.50	17.5	0.39	24,828	0.19	0.24	0.36	
								0.590	6.22	26.1	0.59	23,543	0.34	0.58	0.45	
								0.576	7.98	34.9	0.79	22,877	0.65	1.23	0.57	
2			15.6	103.5	0.610	68.1	10.0	0.607	2.15	11.5	0.20	25,379	0.13	0.13	0.31	15.6
								0.606	3.29	22.9	0.40	23,983	0.21	0.34	0.32	
								0.603	4.42	34.2	0.59	24,232	0.39	0.73	0.34	
								0.601	5.50	45.0	0.78	23,328	0.91	1.64	0.40	
3			15.5	103.8	0.606	66.7	20.0	0.596	1.82	16.3	0.20	40,042	0.11	0.11	0.20	15.1
								0.593	2.64	32.7	0.40	39,877	0.18	0.29	0.31	
								0.591	3.45	49.0	0.59	36,652	0.29	0.58	0.31	
								0.588	4.25	64.9	0.78	38,104	0.64	1.22	0.41	
4			15.5	103.8	0.605	68.5	40.0	0.585	1.70	28.0	0.20	50,117	0.17	0.17	0.20	15.4
								0.582	2.40	55.9	0.39	45,374	0.27	0.44	0.23	
								0.579	3.09	83.7	0.59	47,090	0.47	0.91	0.30	
								0.574	3.79	111.5	0.79	48,859	0.91	1.82	0.33	
								Blend I								
1	3.0	120.0	3.2	120.4	0.389	22.3	5.0	0.388	2.42	7.1	0.18	37,102	0.05	0.05		3.2
								0.387	3.94	14.7	0.38	31,537	0.06	0.11	0.18	
								0.386	5.48	22.4	0.57	30,843	0.12	0.23	0.28	
								0.385	7.00	30.0	0.77	31,144	0.19	0.42	0.37	
2			3.2	120.7	0.386	21.9	10.0	0.384	1.95	9.5	0.19	37,894	0.02	0.02	0.22	3.1
								0.383	2.91	19.1	0.39	38,689	0.08	0.10	0.22	
								0.383	3.82	28.2	0.58	38,024	0.12	0.22	0.22	
								0.381	4.77	37.7	0.77	37,694	0.23	0.45	0.29	
3			3.3	120.4	0.389	22.9	20.0	0.384	1.69	13.8	0.19	57,834	0.07	0.07	0.12	3.2
								0.383	2.41	28.3	0.38	55,334	0.12	0.19	0.27	
								0.381	3.14	42.7	0.58	63,172	0.19	0.38	0.29	
								0.380	3.86	57.1	0.77	65,182	0.36	0.74	0.34	
4			3.1	121.2	0.380	21.8	40.0	0.373	1.58	23.3	0.19	76,374	0.10	0.10	0.13	3.0
								0.371	2.17	46.6	0.38	77,564	0.18	0.28	0.23	
								0.368	2.77	70.8	0.58	76,812	0.34	0.62	0.21	
								0.364	3.34	93.5	0.77	83,577	0.50	1.12	0.27	

(Continued)

†† Specimens were compacted in six layers using kneading compaction. As compacted, specimen diameters and heights were 2.9 and 6.0 in., respectively.

Table A3 (Concluded)

Test No.	Desired Initial Specimen Conditions: Water Content w %	Desired Initial Specimen Conditions: Dry Unit Weight γ_d pcf	Initial Specimen Conditions: Water Content w_i %	Initial Specimen Conditions: Dry Unit Weight γ_{d_i} pcf	Void Ratio e_i	Saturation S_i %	σ_{3_c} psi	Void Ratio Prior to First Pulse	Pulse: σ_1/σ_3	Pulse: $(\sigma_1 - \sigma_3)$ σ_{dp} psi	σ_{dp}/σ_{df}	After 100 Pulses: M_r psi	After 100 Pulses: Permanent ε_1 %	After 100 Pulses: Accumulative	After 100 Pulses: Resilient μ	Final Water Content w_f %
								Blend II								
1	3.0	120.0	2.9	123.5	0.349	22.0	5.0	0.348	2.28	6.4	0.21	34,081	0.07	0.07	0.24	2.9
								0.346	3.50	12.5	0.40	32,765	0.08	0.15	0.22	
								0.345	4.80	19.0	0.61	31,858	0.12	0.27	0.26	
								0.345	6.06	25.3	0.81	39,520	0.23	0.50	0.37	
2			2.9	122.6	0.359	21.4	10.0	0.352	1.97	9.7	0.21	69,824	0	0	0.40	2.8
								0.352	2.92	19.2	0.41	64,859	0.09	0.09	0.37	
								0.351	3.87	28.7	0.62	67,946	0.15	0.24	0.36	
								0.349	4.83	38.3	0.83	61,953	0.32	0.56	0.36	
3			2.9	123.0	0.354	21.0	20.0	0.350	1.78	15.5	0.21	62,955	0.01	0.01	0.18	2.8
								0.348	2.56	31.1	0.41	57,382	0.14	0.15	0.15	
								0.346	3.34	46.8	0.62	58,547	0.30	0.45	0.26	
								0.343	4.83	61.4	0.82	57,948	0.51	0.96	0.25	
4			2.9	122.8	0.357	21.4	40.0	0.349	1.70	28.0	0.21	74,582	0.20	0.20	0.22	2.8
								0.347	2.39	55.7	0.41	73,936	0.43	0.63	0.24	
								0.341	3.05	81.9	0.61	76,689	0.68	1.31	0.11	
								0.336	3.70	108.0	0.80	79,682	0.87	2.18	0.13	

Table A4

Soil Instrumentation--Type and Location

Item	Lane	Station	Type Gage	Designation	Depth ft	Date Installed	Elevation
1	1	0+18	LVDT	D1-A	4.92	3 Sep 80	96.08
		0+21	LVDT	D1-B	3.11	12 Sep 80	97.89
		0+28	WES Soil Pressure (50 psi)	WES-1A	3.03	11 Sep 80	97.97
		0+30	WES Soil Pressure (50 psi)	WES-1B	2.00	7-9 Oct 80	99.00
		0+32	WES Soil Pressure (100 psi)	WES-1C	1.07	2 Dec 80	99.93
		0+32*	WES Soil Pressure (100 psi)	WES-1C	1.08	14 Jan 81	99.92
		0+34	Pore Pressure Cell (25 psi)	PP1-A	11.26	11 Sep 80	89.74
		0+34	Pore Pressure Cell (50 psi)	PP1-B	11.26	11 Sep 80	89.74
3	1	1+16	Pore Pressure Cell (25 psi)	PP3-A	12.01	11-12 Sep 80	88.99
		1+16	Pore Pressure Cell (50 psi)	PP3-B	12.01	11-12 Sep 80	88.99
		1+18	WES Soil Pressure (100 psi)	WES-3C	1.00	2 Dec 80	100.00
		1+20	WES Soil Pressure (50 psi)	WES-3B	2.03	7-9 Oct 80	98.97
		1+22	WES Soil Pressure (50 psi)	WES-3A	2.99	11 Sep 80	98.01
		1+30	LVDT	D3-A	5.41	4 Sep 80	95.59
		1+33	LVDT	D3-B	3.23	12 Sep 80	97.77
5	1	2+16	Pore Pressure Cell (25 psi)	PP5-A	13.3	11-12 Sep 80	87.70
		2+16	Pore Pressure Cell (50 psi)	PP5-B	13.3	11-12 Sep 80	87.70
		2+18**	WES Soil Pressure (100 psi)	WES-5C	1.04	14 Jan 81	99.96
		2+20	WES Soil Pressure (50 psi)	WES-5B	2.03	7-9 Oct 80	98.97
		2+22	WES Soil Pressure (50 psi)	WES-5A	3.01	11 Sep 80	97.99
		2+30	LVDT	D5-A	5.55	3 Sep 80	95.45
		2+33	LVDT	D5-B	2.79	11-12 Sep 80	98.21

* WES-1C was replaced after cable was cut.

** WES-5C was dug out and recompacted on 26 Feb 81 - was not removed; no change in elevation.

Table A5

As Constructed CBR, Density, and Water Content

Item	Material	Lift	Approximate Lift Thickness In.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %
			Lane 1			
1	Crushed limestone	11	9.6	120	138	1.1
		10	4.3	82	138	1.8
		9	6.4	58	137	2.4
		8	6.4	39	138	2.5
		7	8.6	16	144	6.0
	Heavy clay	6	5.0*	--	--	--
		5	4.8	4.0	88	32
		4	4.1	2.4	87	33
		3	8.2	3.5	88	33
		2	9.4	4.0	90	31
		1	9.5	4.6	89	31
2	Crushed limestone	10	2.0	148	148	0.8
	Crushed limestone	9	6.4	42	129	2.8
	Blend II	8	12.5	9	120	4.3
		7	8.0	9	120	3.3
		6	6.5	13	118	4.6
		5	6.5	12	117	4.8
		4	8.6	8	118	3.9
		3	8.5	15	122	3.8
		2	7.2	7	114	4.1
		1	7.1	19	130	7.0
3	Blend II	10	4.8	21	122	2.1
		9	4.4	18	118	3.9
		8	10.1	15	117	4.0
		7	7.6	10	116	3.6
		6	7.3	13	115	4.2
		5	7.2	14	117	3.5
		4	8.6	13	119	4.0
		3	8.6	16	123	3.8
		2	8.9	3.2	119	4.0
		1	8.9	18	130	7.0

(Continued)

* Lift 6 was added to level the item and fill in some low areas; most of the layer was removed during final grading.

Table A5 (Continued)

Item	Material	Lift	Approximate Lift Thickness In.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %
			Lane 1 (Continued)			
4	Blend I	10	4.0	25	118	2.2
	Blend I	9	4.6	39	119	3.2
	Blend II	8	12.2	13	123	4.0
		7	7.4	13	115	4.5
		6	7.6	15	122	4.9
		5	7.4	10	117	3.1
		4	8.2	9	120	3.5
		3	8.0	17	121	4.1
		2	7.0	9	116	4.3
		1	7.0	12	129	8.0
5	Silt	10	7.6	11	108	16.0
		9	6.2	--	--	--
		8	7.3	11	106	14.4
		7	7.3	21	98	19.0
		6	7.0	17	101	19.0
		5	6.8	19	105	20.0
		4	10.0	18	106	17.0
		3	10.0	5	96	20.1
		2	7.0	17	99	19.0
		1	7.0	16	100	18.0
			Lane 2			
1	Blend I (cement stabilized)	11	5.3	150	133	4.9
		10	6.6	131	119	6.6
		9	6.5	80+	109	9.0
		8	5.0	--	--	--
		7	5.0	--	--	--
	Heavy clay	6	6.7	3.8	89	31
		5	6.6	3.0	87	33
		4	7.9	3.3	88	33
		3	7.9	3.1	88	33
		2	9.5	4.9	89	29
		1	9.4	4.2	86	32
2	Blend II (cement stabilized)	10	5.4	150	141	3.7
	Blend II (cement stabilized)	9	5.5	150+	122	5.1
	Blend II	8	7.6	17	120	3.7
		7	8.4	16	119	3.5
		6	8.2	12	123	4.6
		5	8.2	12	120	4.2
		4	9.2	14	120	3.8
		3	9.1	12	120	3.9
		2	7.1	6	119	4.5
		1	7.9	24	128	7.0

(Continued)

(Sheet 2 of 4)

Table A5 (Continued)

Item	Material	Lift	Approximate Lift Thickness In.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %
	Lane 2 (Continued)					
3	Lean mix concrete	9	11.3	--	--	--
	Blend II	8	6.4	10	120	4.0
		7	10.9	11	121	3.6
		6	6.8	12	119	4.3
		5	6.8	10	118	4.1
		4	8.3	14	124	3.4
		3	8.3	12	123	3.8
		2	8.4	10	122	4.0
		1	8.4	26	131	7.0
4	Blend I (cement stabilized)	10	6.2	150	138	4.2
	Blend I (cement stabilized)	9	5.4	101	110	6.4
	Blend II	8	7.1	13	121	4.0
		7	8.2	10	119	3.6
		6	7.1	12	122	4.2
		5	7.0	11	116	4.1
		4	9.6	18	124	3.5
		3	9.5	15	118	4.0
		2	6.5	9	118	5.1
		1	6.5	28	129	6.0
5	Blend II (cement stabilized)	11	4.0	150	138	3.6
		10	5.9	146	135	0.7
		9	5.8	--	--	--
	Silt	8	4.0	--	--	--
		7	8.2	14	101	20.0
		6	7.4	21	101	20.0
		5	7.4	16	104	19.0
		4	9.1	19	100	20.0
		3	9.0	16	102	19.9
		2	7.4	17	97	19.0
		1	7.4	15	101	18.0
1	Crushed limestone	10	8.5	150	142	1.3
		9	20.6**	92	138	2.2
		8	--	--	--	--
		7	--	--	--	--
	Heavy clay	6	7.1	3.8	89	31
		5	7.1	3.0	87	33
		4	8.0	3.3	88	33
		3	7.9	3.1	88	33
		2	7.6	4.9	89	29
		1	7.4	4.2	86	32

(Continued)

** Combined thickness of layers 7, 8, and 9.

Table A5 (Concluded)

Item	Material	Lift	Approximate Lift Thickness In.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %
			Lane 3 (Continued)			
2	Crushed limestone	10	5.6	150	141	1.1
	Crushed limestone	9	6.4	43	136	2.1
	Blend II	8	8.0	17	120	3.7
		7	9.5	16	119	3.5
		6	7.0	12	123	4.6
		5	7.0	12	120	4.2
		4	9.5	14	120	3.8
		3	9.4	12	120	3.9
		2	6.0	6	119	4.5
		1	5.9	24	128	7.0
3	Blend II	10	8.3	100	132	3.8
		9	4.4	15	117	3.4
		8	8.2	10	120	4.0
		7	9.2	11	121	3.6
		6	6.6	12	119	4.3
		5	6.6	10	118	4.1
		4	8.8	14	124	3.4
		3	8.6	12	123	3.8
		2	6.4	10	122	4.0
		1	6.4	26	131	7.0
4	Blend I	10	5.2	80	125	4.2
	Blend I	9	5.9	34	125	5.9
	Blend II	8	9.5	13	121	4.0
		7	8.6	10	119	3.6
		6	6.8	12	122	4.2
		5	6.7	11	116	4.1
		4	9.7	18	124	3.5
		3	9.6	15	118	4.0
		2	4.6	9	118	5.1
		1	4.4	28	129	6.0
5	Blend II	10	4.3	95	130	3.3
	Blend II	9	11.2	63	127	4.0
	Silt	8	6.1	--	--	--
		7	9.6	14	101	20.0
		6	6.4	21	101	20.0
		5	6.4	16	104	19.0
		4	8.5	19	100	20.0
		3	8.4	16	102	19.9
		2	5.4	17	97	19.0
		1	5.3	15	101	18.0

(Sheet 4 of 4)

Table A6

Pre-Traffic Test Pit Data

CBR, Moisture Content, and Density

Item	Material	Depth in.	Station	CBR	Oven Dry Moisture Content %	Nuclear Moisture Content %	Dry Density (Nuclear) lbs/ft^3	Dry Density (Water Balloon) lbs/ft^3	Dry Density (Drive Cylinder) lbs/ft^3
1	Crushed limestone	Surface	0+12.5	150+	0.7	1.3	149	150	--
		6		115	0.8	2.9	127	145	--
		12		91	1.2	2.9	135	140	--
		18		102	1.1	2.8	135	141	--
		24	0+25	115	1.5	3.1	131	--	--
	Heavy clay (CH)	36		6	30.3	30.4	92	--	91
		48		7	30.6	30.6	92	--	89
		60		5	29.2	29.8	93	--	89
	Lean clay (CL)	72		4.3	19.8	22.1	104	--	99
3	Blend II	Surface	1+25	28	1.3	1.9	121	128	--
		6		19	1.7	2.8	119	128	--
		12		15	1.8	3.2	123	129	--
		24		9	2.7	3.8	120	130	--
		36		17	2.7	4.0	119	126	--
		48		10	3.0	4.4	119	125	--
		60		8	3.3	5.2	120	125	--
	Lean clay	78		3.4	20.4	21.3	103	--	99
4	Blend I	Surface	1+75	21	1.9	2.5	115	122	--
	Blend I	6		29	2.1	2.6	118	125	--
	Blend II	12		11	1.9	2.5	120	127	--
		24		13	2.2	3.1	118	124	--
		36		15	3.2	4.5	118	121	--
		48		15	3.2	4.5	120	--	--
		60		8	3.3	5.9	118	--	--
	Lean clay	76	1+75	4.2	17.1	18.4	104	--	98
5	Silt (ML)	Surface	2+25	11	14.0	15.2	108	--	104
		6		26	15.9	15.0	104	--	101
		12		28	15.5	16.1	108	--	103
		24		22	16.1	18.3	101	--	100
		36		26	16.8	18.5	105	--	103
		48		30	17.0	17.4	108	--	104
		60		13	15.0	15.4	109	--	102
	Lean clay	72	2+25	20	15.1	19.3	100	--	99

Table A7

Pre-Traffic and Post-Traffic Plate Bearing Test Results

		Structural Composition				0 Passes			2600 Passes		
		Upper Layer		Lower Layer							
Lane	Item	Material	Thickness in.	Material	Thickness in.	Station ft	ku' (uncorrected) $lbs/in.^3$	k $lbs/in.^3$	Station ft	ku' (uncorrected) $lbs/in.^3$	k $lbs/in.^3$
1	1	Crushed limestone	36	Heavy clay	36	0+25*	667	667	0+40	1111	909
	2	Crushed limestone	9	Blend II	63	0+75*	769	769	0+56	1111	1587
	3	Blend II	72	--	--	1+25*	400	714	1+23	625	1000
	4	Blend I	9	Blend II	63	1+75*	556	625	1+75	400	667
	5	Silt	72	--	--	2+25*	179	179	2+25	556	625
2	2	Crushed limestone	12	Blend II	60	0+75	5000	1852	--	--	--
	4	Blend I (cement stabilized)	12	Blend II	60	1+78.5	3333	1887	--	--	--
3	1	Crushed limestone	29	Heavy clay	43	--	--	--	0+30	1429	1250
	2	Crushed limestone	12	Blend II	60	0+76	2000	1667	0+80	769	1250
	3	Blend II (opt.)	6	Blend II	66	--	--	--	1+27	1429	1667
	4	Blend I (opt.)	12	Blend II	60	1+75	2000	1429	1+78	1000	1333
	5	Blend II	16	Silt	56	--	--	--	2+28	2500	1818

* Tests run outside traffic lane.

Table A8

Nondestructive Test Results Obtained During Construction with the

WES 16-kip Vibrator and Road Rater 2008

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1											
0+12.5	12.5 R	95.0	Lean clay (subgrade)	200	15	500	1.5	0.7	0.5	0.2	41	15	850	4.7	1.9	1.0	0.3
					15	2,500	9.2	5.2	2.2	1.2		15	4800	33.6	14.7	5.8	2.2
					15	3,500	14.0	7.9	3.0	1.8		15	6910	84.7	22.5	8.3	3.1
					20	2,950	11.6	7.9	3.5	2.5		20	5030	40.7	21.0	9.4	4.0
					25	2,900	12.0	9.2	3.9	2.6		25	5000	49.0	27.9	15.1	7.9
					30	3,000	12.2	9.9	5.4	4.0		30	5000	33.2	18.9	9.2	6.6
0+12.5	12.5 R	Lift 1	Heavy clay	230	15	500	1.2	0.7	0.5	0.1	47	15	970	4.7	2.1	0.9	9.4
					15	2,500	7.0	4.4	2.2	0.9		15	4810	38.7	14.1	5.8	2.7
					15	3,500	10.8	6.6	3.2	1.3		15	6920	83.7	22.7	9.2	--
					20	2,500	8.3	5.6	2.9	1.3		20	4900	44.9	19.6	9.7	--
					25	2,500	7.9	5.6	3.4	2.3		25	4790	42.2	19.1	11.8	8.6
					30	2,500	7.3	5.2	2.7	1.6		30	3480	26.8	14.4	7.5	2.2
0+12.5	12.5 R	Lift 2	Heavy clay	210	15	500	1.3	1.0	0.5	0.1	44	15	1010	4.6	1.5	0.9	0.5
					15	2,500	8.3	4.9	2.0	1.1		15	5110	42.0	10.7	5.7	3.2
					15	3,500	12.4	7.3	3.0	1.0		15	6970	84.2	15.9	8.3	4.5
					20	2,500	7.6	4.8	2.5	1.2		20	4980	44.4	12.6	7.1	4.2
					25	2,500	7.1	4.6	2.7	1.6		25	4880	43.0	13.3	8.5	5.4
					30	2,500	6.2	3.6	1.8	1.2		30	3920	30.0	8.3	5.4	4.1
0+12.5	12.5 R	Lift 3	Heavy clay	200	15	500	1.5	0.9	0.2	0.2	56	15	980	4.9	1.4	0.8	0.5
					15	2,500	8.2	4.7	1.5	1.2		15	5050	51.1	9.3	4.9	3.3
					15	3,500	13.0	7.1	2.3	1.5		15	7060	87.3	12.8	6.9	4.5
					20	2,500	7.7	5.0	2.1	1.2		20	5050	86.4	10.2	5.6	3.8
					25	2,500	7.5	4.6	2.5	1.2		25	4930	83.8	11.7	7.3	5.4
					30	2,500	6.8	3.9	1.6	1.4		30	3670	82.6	7.0	4.1	3.4
0+12.5	12.5 R	Lift 4	Heavy clay	140	15	500	1.5	1.2	0.2	0.2	49	15	820	6.2	1.3	0.9	0.4
					15	2,500	9.2	4.0	1.7	1.0		15	4880	50.0	10.5	4.7	3.0
					15	3,500	14.5	5.9	2.6	1.6		15	6950	91.9	15.0	6.3	4.2
					20	2,500	9.1	4.2	2.2	1.5		20	4890	86.0	11.2	5.3	3.6
					25	2,500	8.7	4.3	2.2	1.2		25	4960	83.0	11.5	5.5	4.1
					30	2,500	8.7	3.6	1.7	1.3		30	3870	82.2	8.6	3.6	2.6

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+12.5	12.5 R	Lift 5	Heavy clay	180	15	500	1.7	1.0	0.2	0.0	45	15	1120	6.6	2.1	1.3	0.7
					15	2,500	9.8	5.7	1.7	1.0		15	5010	41.9	9.7	4.6	2.9
					15	3,500	15.2	8.5	2.5	1.5		15	7130	89.0	14.6	6.1	3.4
					20	2,500	9.1	6.2	2.4	1.6		20	5110	45.9	10.0	4.9	3.3
					25	2,500	9.1	5.3	2.2	1.5		25	4990	46.5	10.4	5.1	3.7
					30	2,500	8.6	6.2	2.0	1.2		30	3590	30.9	7.7	2.8	1.8
0+12.5	12.5 R	Lift 6	Crushed limestone	190	15	500	1.4	1.3	0.2	0.2	47	15	1010	5.0	3.1	1.3	0.9
					15	2,500	8.6	6.8	1.9	1.2		15	5090	43.7	17.5	5.7	3.9
					15	3,500	13.8	1.2	3.0	1.7		15	7060	85.7	25.5	8.4	5.5
					20	2,500	8.6	7.2	2.6	1.7		20	4890	46.7	20.0	6.5	4.3
					25	2,500	8.6	7.2	2.8	2.1		25	4330	44.6	23.9	7.4	4.9
					30	2,500	8.6	7.3	2.6	2.0		30	2760	28.1	20.1	5.6	3.9
0+12.5	12.5 R	Lift 7	Crushed limestone	260	15	--	--	--	--	--	122	15	980	3.6	2.0	1.1	0.7
					15	--	--	--	--	--		15	5080	27.1	14.9	6.8	3.8
					15	2,472	6.4	5.2	2.3	1.3		15	7050	43.2	22.4	9.6	5.6
					20	2,513	6.2	5.1	2.4	1.5		20	4940	29.7	17.6	8.4	4.9
					25	2,481	5.8	4.9	2.5	1.6		25	5040	33.7	21.0	10.0	6.1
					30	2,535	5.4	4.6	2.1	1.4		30	3690	22.8	14.7	7.0	4.1
0+12.5	12.5 R	Lift 8	Crushed limestone	350	15	5,040	10.9	7.7	4.3	2.7	282	15	1020	2.1	1.3	0.9	0.6
					20	5,009	10.2	7.2	3.9	2.5		15	4900	14.0	8.4	5.1	3.2
					25	5,053	9.9	7.2	3.7	2.4		15	6990	21.4	12.8	7.6	4.7
					30	5,132	9.4	7.1	3.1	1.8		20	5050	13.5	8.5	5.1	3.2
					15	2,536	4.8	3.5	2.0	1.3		25	5020	14.6	9.1	5.6	3.4
					20	2,521	4.5	3.2	1.8	1.2		30	4950	13.8	8.7	5.4	3.0
					25	2,514	4.2	3.0	1.7	1.1							
					30	2,602	3.9	2.8	1.4	0.9							
0+12.5	12.5 R	Lift 9	Crushed limestone	500	15	2,549	3.2	2.3	1.5	0.9	404	15	1080	1.4	0.8	0.6	0.5
					20	2,425	2.6	1.9	1.3	0.9		15	5060	9.1	5.3	3.5	2.5
					25	2,486	2.5	1.8	1.1	0.7		15	6840	13.5	7.5	4.9	3.[illegible]
					30	2,526	2.3	1.7	1.0	0.6		20	5020	7.9	4.9	3.3	2.3
					15	5,069	6.5	4.8	3.0	1.9		25	5050	7.1	4.5	3.0	2.1
					20	5,146	6.0	4.5	2.8	1.9		30	5010	6.6	4.1	2.8	1.9
					25	4,993	5.3	3.9	2.3	1.5							
					30	5,014	4.8	3.3	2.0	1.2							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+12.5	12.5 R	Lift 10	Crushed limestone	920	15	2,419	1.6	1.0	0.7	0.5	824	15	1170	0.7	0.4	0.3	0.2
					20	2,501	1.5	1.0	0.6	0.5		15	4880	4.3	2.4	1.7	1.3
					25	2,746	1.4	0.9	0.6	0.4		15	6940	6.8	3.5	2.5	1.9
					30	2,296	1.1	0.6	0.4	0.3		20	5210	4.1	2.2	1.5	1.2
					15	5,014	3.5	2.3	1.4	1.1		25	4980	3.6	1.8	1.3	0.9
					20	5,034	3.2	2.1	1.4	1.0		30	5050	3.5	1.8	1.2	0.9
					25	5,026	2.9	1.8	1.1	0.8							
					30	5,078	2.6	1.5	0.8	0.6							
					15	9,820	7.8	5.0	3.0	2.3							
					20	10,345	7.6	4.9	3.0	2.2							
					25	10,184	6.7	4.8	2.2	1.6							
					30	10,430	6.5	3.9	2.0	1.4							
0+12.5	12.5 L	95.0	Lean clay	220	15	500	1.4	0.7	0.4	0.2	111	15	1020	4.5	1.8	0.9	0.4
					15	2,500	8.8	4.7	1.8	1.0		15	4860	28.0	10.7	4.5	1.9
					15	3,500	13.2	6.9	2.7	1.5		15	6940	46.8	17.3	6.7	2.9
					20	3,000	11.9	7.3	2.9	1.7		20	4980	31.3	14.2	6.1	2.8
					25	3,100	13.9	9.2	4.9	3.7		25	4960	37.1	20.3	8.8	4.1
					30	2,950	12.2	8.2	4.5	3.1		30	3660	28.0	17.1	9.1	5.3
0+12.5	12.5 L	Lift 1	Heavy clay	215	15	500	1.2	0.7	0.5	0.1	42	15	1040	5.4	2.1	1.0	0.5
					15	2,500	7.8	4.8	2.2	1.0		15	4900	38.6	12.6	5.1	2.5
					15	3,500	12.2	7.5	3.2	1.3		15	6790	83.3	23.7	8.0	3.7
					20	2,500	8.7	5.9	2.7	1.3		20	4790	42.1	16.7	7.2	3.5
					25	2,500	8.8	6.5	3.5	1.8		25	4790	46.9	22.5	12.0	7.1
					30	2,500	8.8	6.7	4.0	2.7		30	3620	32.6	16.4	8.4	5.0
0+12.5	12.5 L	Lift 2	Heavy clay	200	15	500	1.5	0.9	0.2	--	52	15	950	5.3	2.8	0.9	0.0
					15	2,500	8.9	5.6	1.9	1.1		15	5030	49.8	12.0	6.1	2.3
					15	3,500	13.7	8.6	3.0	1.4		15	6980	87.3	18.1	8.5	3.0
					20	2,500	8.9	5.9	2.5	1.3		20	5020	86.5	15.2	7.8	1.9
					25	2,500	8.9	6.4	3.2	1.7		25	4980	55.8	20.4	11.8	2.3
					30	2,500	7.3	5.2	2.9	2.0		30	3600	33.8	11.5	7.0	4.2

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+12.5	12.5 L	Lift 3	Heavy clay	200	15	500	1.7	0.7	0.2	0.2	59	15	910	5.3	1.6	1.0	0.6
					15	2,500	9.5	4.2	1.7	1.1		15	4960	51.7	10.1	5.3	3.3
					15	3,500	14.7	6.2	2.5	1.6		15	7030	87.5	14.3	7.6	4.7
					20	2,500	9.2	4.4	2.0	1.3		20	4880	86.7	11.4	6.3	4.0
					25	2,500	8.8	4.8	2.5	1.5		25	4960	82.8	13.6	8.1	5.1
					30	2,500	7.6	4.1	2.2	1.7		30	3650	35.3	8.7	5.9	4.3
0+12.5	12.5 L	Lift 4	Heavy clay	180	15	500	1.7	1.0	0.2	0.1	71	15	980	6.6	3.4	1.0	0.6
					15	2,500	10.5	5.2	2.1	1.2		15	5060		12.0	5.7	3.5
					15	3,500	16.5	8.7	3.2	1.8		15	7040	91.7	18.8	8.0	5.0
					20	2,500	10.0	5.7	2.5	1.4		20	4920	84.9	12.5	6.2	3.9
					25	2,500	9.5	5.7	3.0	2.0		25	5000	58.2	14.2	8.3	5.9
					30	2,500	8.5	4.7	2.7	1.7		30	3720	39.6	9.1	5.0	4.1
0+12.5	12.5 L	Lift 5	Heavy clay	160	15	500	1.7	1.0	0.2	0.2	85	15	970	6.3	1.7	0.9	0.6
					15	2,500	10.7	5.2	1.9	1.2		15	5140	60.8	13.7	5.6	3.3
					15	3,500	16.6	8.0	3.0	1.8		15	7010	82.7	18.9	7.3	4.4
					20	2,500	10.2	5.2	2.4	1.5		20	4960	85.5	13.8	5.9	3.8
					25	2,500	10.0	5.7	2.6	1.5		25	5030	82.7	16.4	7.4	4.7
					30	2,500	9.2	5.7	2.6	1.5		30	3790	81.3	12.0	6.0	4.7
0+12.5	12.5 L	Lift 6	Heavy clay	70	15	500	1.9	1.4	0.2	0.2	53	15	1010	6.4	2.1	1.1	0.6
					15	2,500	11.0	7.0	2.0	1.2		15	5000	52.8	12.9	6.0	3.5
					15	3,500	17.0	10.4	3.0	1.9		15	7100	92.3	18.6	8.3	4.8
					20	2,500	11.0	7.5	3.0	2.1		20	5070	85.0	15.0	7.2	4.2
					25	2,500	11.0	7.7	2.7	2.1		25	4720	84.1	16.2	7.9	5.0
					30	2,500	9.7	7.3	2.5	1.7		30	3240	31.8	10.6	4.9	3.5
0+12.5	℄ Lane 2	Lift 7	Cement stabilized Blend I	200	15	2,524	8.1	5.9	2.0	1.3	48	15	970	4.6	2.3	1.0	0.6
					20	2,495	8.2	6.2	2.6	1.8		15	5010	44.2	15.5	6.0	3.6
					25	2,536	8.0	6.2	2.4	1.6		15	7130	88.0	23.9	8.8	5.3
					30	2,522	7.7	6.0	2.7	1.9		20	5010	49.1	17.8	7.7	5.1
												25	4950	52.1	19.2	7.7	4.8
												30	3470	39.6	16.3	7.2	4.8

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+12.5	℄ Lane 2	Lift 8	Cement stabilized Blend I	340	15	2,503	5.4	4.0	1.4	1.0	277	15	1060	2.3	1.5	1.0	0.6
					20	2,511	5.2	3.9	1.6	1.2		15	4920	14.5	9.4	5.6	3.4
					25	2,559	5.1	3.8	1.4	1.1		15	6970	21.9	14.4	8.4	5.0
					30	2,552	4.3	3.2	1.2	0.9		20	5000	14.2	9.8	6.0	3.9
					15	4,963	11.7	8.5	3.0	2.0		25	5040	13.9	9.5	5.6	3.5
					20	5,018	11.5	8.6	3.3	2.4		30	4820	12.8	8.1	5.0	3.3
					25	4,987	11.1	8.2	2.8	2.2							
					30	4,922	10.1	7.8	2.7	1.9							
12.5	℄ Lane 2	Lift 9	Cement stabilized Blend I	500	15	2,477	3.4	2.5	1.5	1.0	529	15	1030	1.3	1.0	0.8	0.5
					20	2,525	3.1	2.3	1.3	0.9		15	4930	7.7	5.9	4.0	2.6
					25	2,503	2.7	2.0	1.2	0.8		15	6940	11.5	9.1	5.6	3.6
					30	2,532	2.4	1.8	0.9	0.6		20	4970	7.2	5.5	4.0	2.6
					15	4,992	7.2	5.2	3.1	2.1		25	5000	6.2	4.7	3.5	2.4
					20	4,959	6.6	4.8	2.8	1.9		30	4940	5.4	3.9	3.0	1.9
					25	5,031	5.8	4.2	2.4	1.6							
					30	4,987	5.1	3.8	2.0	1.2							
					15	9,985	16.2	11.4	6.5	4.6							
					20	9,979	15.3	10.9	6.1	4.2							
					25	10,003	13.8	10.1	5.1	3.4							
					30	9,852	12.5	9.8	4.6	2.7							
0+12.5	℄ Lane 2	Lift 10	Cement stabilized Blend I	1180	15	2,497	1.3	0.9	0.7	0.6	707	15	1010	0.5	0.3	0.3	0.2
					20	2,488	1.1	0.8	0.6	0.5		15	4890	3.4	2.1	1.7	1.4
					25	2,465	1.0	0.7	0.5	0.4		15	7010	6.4	3.2	2.6	2.0
					30	2,535	0.9	0.6	0 4	0.3		20	5010	3.0	1.9	1.5	1.2
					15	5,004	2.7	2.0	1.5	1.2		25	5140	2.8	1.7	1.3	1.0
					20	4,997	2.4	1.7	1.3	1.0		30	4970	2.5	1.4	1.1	0.9
					25	4,954	2.0	1.5	1.1	0.7							
					30	5,034	1.8	1.3	0 9	0.6							
					15	9,970	5.9	4.5	3.2	2.4							
					20	10,048	5.3	3.9	2.8	2.0							
					25	10,072	4.8	3.4	2.4	1.6							
					30	9,798	4.3	3.0	2.1	1.4							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+12.5	℄ Lane 3	Lift 9	Crushed limestone	370	15	2,438	3.2	2.3	1.2	0.8	433	15	1060	2.0	1.0	0.7	0.5
					20	2,556	3.1	2.3	1.3	0.9		15	5010	11.0	5.3	3.5	2.2
					25	2,520	2.8	2.1	1.1	0.8		15	6960	15.5	7.4	4.9	3.0
					30	2,553	2.4	1.7	0.8	0.6		20	4940	9.5	5.1	3.5	2.3
					15	4,980	6.9	5.0	2.5	1.7		25	4930	8.7	4.5	3.0	2.0
					20	5,000	6.6	4.9	2.6	1.9		30	5180	8.2	4.2	2.7	1.8
					25	5,003	5.8	4.2	2.2	1.7							
					30	5,068	5.1	3.6	1.9	1.2							
0+12.5	℄ Lane 3	Lift 10	Crushed limestone	1010	15	2,497	1.6	1.2	0.8	0.6	985	15	1170	0.8	0.4	0.3	0.3
					20	2,503	1.5	1.1	0.7	0.6		15	4920	4.1	2.5	1.9	1.5
					25	2,487	1.3	0.9	0.6	0.5		15	6890	6.1	3.4	2.7	2.1
					30	2,529	1.1	0.7	0.5	0.4		20	4980	3.6	2.2	1.7	1.3
					15	4,982	3.4	2.5	1.6	1.2		25	5010	3.2	2.0	1.6	1.2
					20	4,999	3.0	2.3	1.5	1.1		30	5010	2.8	1.6	1.3	1.0
					25	5,025	2.8	2.1	1.4	1.1							
					30	4,915	2.3	1.7	1.1	0.9							
					15	9,990	7.3	5.4	3.5	2.6							
					20	10,026	6.7	5.0	3.2	2.4							
					25	10,020	6.1	4.6	2.9	2.2							
					30	10,010	5.0	3.6	2.3	1.8							
0+37.5	12.5 R	95.0	Lean clay (subgrade)	240	15	500	1.3	0.6	0.5	0.2	133	15	970	3.6	1.6	0.7	0.4
					15	2,500	7.5	4.2	2.2	1.3		15	4880	26.8	10.6	4.2	2.5
					15	3,500	11.5	6.2	3.2	1.9		15	7000	42.8	15.6	6.3	3.7
					20	3,000	9.3	5.7	3.2	2.4		20	5010	30.8	11.4	5.5	3.3
					25	3,000	9.2	5.2	2.7	1.7		25	5020	30.5	13.1	6.7	4.2
					30	3,000	8.0	5.2	2.7	2.0		30	3360	19.6	7.4	3.9	2.4
0+37.5	12.5 R	Lift 1	Heavy clay	225	15	500	1.2	0.6	0.4	0.1	41	15	1030	4.1	1.5	0.8	0.5
					15	2,500	7.2	3.3	1.9	1.0		15	4970	36.3	8.6	4.6	2.6
					15	3,500	11.0	5.0	2.7	1.4		15	6860	82.7	13.2	6.7	3.7
					20	2,500	7.4	3.8	2.2	1.1		20	4890	36.2	9.7	5.3	3.0
					25	2,500	6.9	3.8	2.5	1.7		25	4920	37.5	11.2	6.7	4.4
					30	2,500	6.2	3.3	2.2	1.2		30	4270	30.0	9.3	5.0	3.2

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5	12.5 R	Lift 2	Heavy clay	210	15	500	1.2	0.8	0.5	0.2	48	15	1000	5.4	1.7	0.8	0.5
					15	2,500	8.0	4.3	1.7	1.0		15	4960	49.8	10.2	5.0	2.9
					15	3,500	1.3	6.5	2.6	1.5		15	6970	91.6	15.3	7.1	3.9
					20	2,500	7.7	4.2	2.0	1.0		20	4870	46.4	10.3	4.8	2.8
					25	2,500	7.5	4.3	2.5	1.5		25	4940	53.5	13.1	6.6	4.2
					30	2,500	6.7	4.0	2.0	1.2		30	4110	35.0	9.7	4.8	3.2
0+37.5	12.5 R	Lift 3	Heavy clay	190	15	500	1.6	1.1	0.5	0.2	47	15	910	5.3	1.4	0.8	0.4
					15	2,500	8.8	5.2	1.6	1.2		15	5000	43.9	10.7	4.6	2.4
					15	3,500	13.5	5.1	2.4	1.6		15	7140	89.1	16.5	6.7	3.2
					20	2,500	8.8	5.2	1.9	1.4		20	5040	44.4	11.5	5.1	2.6
					25	2,500	8.4	5.2	2.2	1.7		25	4600	40.3	11.9	6.2	3.5
					30	2,500	8.4	5.2	2.2	1.4		30	3220	25.3	7.9	4.0	2.5
0+37.5	12.5 R	Lift 4	Heavy clay	130	15	500	1.7	1.0	0.2	0.2	49	15	790	5.4	1.4	0.8	0.4
					15	2,500	9.7	5.2	1.8	1.1		15	5050	52.1	12.7	4.8	2.8
					15	3,500	15.7	8.0	2.7	1.6		15	6940	90.8	17.7	6.7	3.9
					20	2,500	9.0	5.2	2.0	1.2		20	4890	84.9	13.1	5.1	2.9
					25	2,500	9.2	6.0	2.5	1.8		25	4940	54.3	15.1	6.4	4.2
					30	2,500	9.7	5.5	2.0	1.2		30	3770	40.2	12.6	5.0	3.0
0+37.5	12.5 R	Lift 5	Heavy clay	170	15	500	1.8	1.0	0.3	0.1	48	48	1060	6.7	1.7	0.9	0.6
					15	2,500	9.8	5.2	1.8	1.1		15	5160	50.9	12.2	5.3	2.9
					15	3,500	15.0	7.6	2.7	1.6		15	7110	91.9	17.7	7.2	4.0
					20	2,500	9.9	5.3	2.2	1.2		20	5060	50.3	12.6	5.4	3.1
					25	2,500	9.1	5.1	2.2	1.5		25	4870	50.9	13.6	6.3	4.1
					30	2,500	8.6	5.6	2.2	1.2		30	3210	29.3	9.3	4.0	2.4
0+37.5	12.5 R	Lift 6	Crushed limestone	210	15	500	1.3	1.1	0.2	0.2	68	15	1050	4.6	2.2	1.0	0.7
					15	2,500	7.3	5.8	1.8	1.2		15	4920	39.0	11.7	4.5	3.0
					15	3,500	11.2	8.7	2.7	1.6		15	7270	73.7	18.8	6.1	4.4
					20	2,500	7.5	6.0	2.2	1.2		20	5020	44.1	13.9	5.1	3.5
					25	2,500	7.7	6.5	2.7	1.8		25	4740	48.4	16.8	6.7	4.6
					30	2,500	7.7	7.2	2.7	1.7		30	3110	30.3	12.8	5.6	3.6

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5	12.5 R	Lift 7	Crushed	260	15	2,519	6.2	4.6	1.9	1.2	146	15	960	3.6	1.4	1.0	0.6
			limestone		20	2,515	5.8	4.5	2.0	1.3		15	4960	24.1	12.0	5.4	3.3
					25	2,428	5.5	4.4	2.1	1.6		15	7000	38.1	18.3	7.9	4.8
					30	2,435	4.9	4.0	1.9	1.2		20	4920	24.9	13.2	6.3	3.9
												25	5000	29.1	17.0	8.3	5.5
												30	4790	28.1	16.5	8.0	5.2
0+37.5	12.5 R	Lift 8	Crushed	330	15	2,492	5.0	3.3	1.6	1.1	228	15	960	2.1	1.4	0.8	0.5
			limestone		20	2,533	4.8	3.3	1.7	1.1		15	4940	17.2	9.2	4.5	2.8
					25	2,533	4.7	3.3	1.6	1.1		15	6950	26.0	13.5	6.8	4.2
					30	2,490	4.1	3.0	1.4	1.0		20	4970	17.1	10.1	5.1	3.1
					15	4,981	11.1	7.4	3.7	2.4		25	5030	19.2	11.3	5.9	3.6
					20	5,059	11.1	7.6	3.7	2.4		30	4410	16.2	9.8	4.8	2.9
					25	5,098	11.0	7.9	3.3	2.5							
					30	4,951	10.0	7.8	2.9	2.0							
0+37.5	12.5 R	Lift 9	Crushed	580	15	2,509	2.6	1.9	1.3	0.9	544	15	1150	1.2	0.7	0.5	0.4
			limestone		20	2,491	2.4	1.8	1.2	0.9		15	5050	7.2	4.4	3.2	2.3
					25	2,510	2.3	1.7	1.1	0.8		15	7010	10.8	6.2	4.4	3.2
					30	2,512	2.1	1.6	1.1	0.7		20	5110	6.9	4.1	2.9	2.1
					15	5,033	5.7	4.1	2.7	1.9		25	5020	6.2	3.7	2.7	1.9
					20	5,136	5.3	4.0	2.6	1.9		30	5040	5.9	3.6	2.6	1.8
					25	5,114	4.9	3.6	2.3	1.6							
					30	5,102	4.5	3.3	2.2	1.5							
					15	10,015	12.5	9.2	5.9	4.2							
					20	10,146	11.3	8.2	5.4	3.9							
					25	10,109	10.8	8.3	4.9	3.4							
					30	9,993	10.2	8.5	5.1	3.5							
0+37.5	12.5 R	Lift 10	Crushed	680	15	2,509	2.2	1.4	0.8	0.6	664	15	970	0.6	0.3	0.2	0.2
			limestone		20	2,583	2.1	1.3	0.8	0.5		15	4960	4.4	2.4	1.7	1.2
					25	2,547	1.8	1.1	0.6	0.4		15	7020	7.5	3.6	2.5	1.8
					30	2,522	1.7	1.1	0.6	0.4		20	5080	4.0	2.2	1.5	1.1
					15	5,010	4.6	2.9	1.7	1.1		25	5220	3.8	2.0	1.3	0.9
					20	5,063	4.3	2.8	1.6	1.1		30	5120	3.6	1.9	1.2	0.8

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5 (Cont'd)	12.5 R	Lift 10	Crushed limestone	680	25	5,011	4.0	2.5	1.3	0.9							
					30	4,916	3.7	2.3	1.2	0.7							
					15	9,960	10.0	6.2	3.4	2.3							
					20	9,907	9.5	5.9	3.2	2.2							
					25	10,120	9.3	5.9	2.9	1.9							
					30	10,165	9.9	5.3	2.4	1.3							
0+37.5	12.5 L	95.0	Lean clay (subgrade)	215	15	500	1.2	0.7	0.3	0.2	101	15	1010	4.5	1.8	0.9	0.4
					15	2,500	8.1	4.4	2.1	1.3		15	4990	28.4	11.2	5.0	2.6
					15	3,500	12.7	6.8	3.0	1.8		15	6920	47.5	18.4	7.2	3.7
					20	3,250	11.2	6.9	3.4	2.3		20	4980	32.1	14.8	7.1	3.8
					25	3,000	12.2	8.7	5.4	4.0		25	4900	35.3	19.4	10.4	6.2
					30	2,950	10.0	7.2	3.5	2.8		30	3920	24.7	12.9	7.2	5.4
0+37.5	12.5 L	Lift 1	Heavy clay	230	15	500	1.2	0.7	0.5	0.2	44	15	990	5.1	1.7	0.9	0.5
					15	2,500	7.5	4.7	2.4	1.2		15	4870	39.5	9.6	5.0	2.7
					15	3,500	11.8	7.4	3.6	1.7		15	6890	85.1	16.8	8.1	4.2
					20	2,500	8.1	4.5	2.6	1.5		20	4930	45.6	13.2	7.2	4.0
					25	2,500	7.8	5.3	3.4	2.2		25	4930	44.4	14.3	8.9	6.1
					30	2,500	7.1	5.1	2.8	2.2		30	3820	30.4	10.4	5.6	3.5
0+37.5	12.5 L	Lift 2	Heavy clay	200	15	500	1.5	0.8	0.2	0.5	48	48	1060	5.0	1.8	0.8	1.4
					15	2,500	8.6	5.2	2.2	1.2		15	7070	43.0	13.2	3.9	2.7
					15	3,500	13.2	8.0	3.4	1.8		15	5060	85.3	30.8	7.2	9.8
					20	2,500	8.2	5.7	2.9	1.5		20	5040	46.2	21.6	6.7	3.7
					25	2,500	7.7	5.5	3.2	2.0		25	4990	46.3	22.2	8.4	5.0
					30	2,500	6.7	4.8	2.2	1.5		30	3870	31.4	14.9	5.5	3.7
0+37.5	12.5 L	Lift 3	Heavy clay	190	15	500	1.5	1.0	0.2	0.2	44	15	890	6.1	1.6	0.9	0.6
					15	2,500	9.5	5.1	1.7	1.7		15	5130	50.0	9.3	4.7	3.3
					15	3,500	14.0	7.7	2.7	1.9		15	6980	92.3	12.7	6.2	4.6
					20	2,500	9.0	5.0	2.1	1.5		20	5020	86.6	9.6	4.8	3.6
					25	2,500	8.5	4.7	2.3	1.7		25	5020	82.6	10.5	6.2	4.5
					30	2,500	8.0	4.2	1.9	1.5		30	4000	81.8	7.2	4.2	3.4

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5	12.5 L	Lift 4	Heavy clay	190	15	500	1.5	0.5	0.1	0.2	79	15	960	6.4	4.4	0.8	0.5
					15	2,500	9.2	5.1	1.8	1.2		15	5000	66.1	11.6	5.0	2.9
					15	3,500	14.6	7.6	2.7	1.7		15	6800	88.9	18.2	6.6	3.9
					20	2,500	8.9	5.0	2.1	1.2		20	4910	84.8	10.0	5.2	3.2
					25	2500	8.7	5.2	2.3	1.7		25	4980	82.8	10.0	5.7	4.2
					30	2,500	8.2	5.2	1.7	1.2		30	3820	82.0	7.6	3.8	2.5
0+37.5	12.5 L	Lift 5	Heavy clay	170	15	500	1.7	1.0	0.2	0.2	53	15	940	6.2	1.8	1.0	0.6
					15	2,500	10.2	5.7	1.8	1.2		15	4900	47.6	10.8	5.3	3.5
					15	3,500	15.7	8.5	2.8	1.9		15	6970	86.3	15.2	7.5	5.0
					20	2,500	10.0	5.7	2.2	1.5		20	5040	47.0	11.3	5.8	3.8
					25	2,500	9.5	5.8	2.4	1.6		25	4820	45.9	--	6.5	3.9
					30	2,500	8.7	5.3	2.0	1.6		30	3430	28.4	8.3	4.2	2.7
0+37.5	12.5 L	Lift 6	Heavy clay	160	15	500	1.7	1.2	0.2	0.2	129	15	1030	7.3	2.2	1.0	0.7
					15	2,500	10.2	5.7	1.9	1.2		15	4950	72.5	15.5	5.8	3.7
					15	3,500	16.0	8.5	2.8	1.7		15	7090	89.1	24.2	7.8	4.8
					20	2,500	10.0	5.7	2.7	1.7		20	5050	85.6	17.4	6.2	3.8
					25	2,500	10.0	6.0	2.5	1.5		25	4710	82.9	18.6	7.5	5.3
					30	2,500	10.0	6.0	2.5	1.5		30	3260	81.4	13.8	5.0	3.3
0+37.5	℄ Lane 2	Lift 7	Cement stabilized Blend I	220	15	2,529	7.6	5.8	2.0	1.2	77	15	940	4.2	1.8	0.9	0.5
					20	2,509	7.4	5.7	2.2	1.5		15	4930	35.3	13.9	5.8	3.4
					25	2,501	7.3	5.9	2.2	1.4		15	6950	61.5	22.0	8.6	5.0
					30	2,517	7.5	6.2	2.5	1.5		20	5020	38.4	16.0	6.7	4.2
												25	5010	42.6	17.0	7.5	4.3
												30	4060	35.0	17.1	7.7	4.4
0+37.5	℄ Lane 2	Lift 8	Cement stabilized Blend I	380	15	2,517	4.9	3.9	1.4	0.9	236	15	980	2.4	1.4	1.0	0.6
					20	2,561	4.6	3.5	1.5	1.2		15	5030	15.7	9.4	5.8	3.5
					25	2,542	4.7	3.7	1.2	0.8		15	6990	24.0	13.4	8.4	5.1
					30	2,529	4.0	3.1	1.0	0.9		20	5010	14.8	9.2	5.8	3.8
					15	4,987	10.6	8.3	2.9	2.0		25	5040	15.1	9.2	5.6	3.3
					20	4,941	9.7	7.2	2.9	2.3		30	4970	14.5	8.2	5.0	2.9
					25	5,041	10.1	7.9	2.5	1.6							
					30	4,983	8.9	7.0	2.0	1.7							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5	℄ Lane 2	Lift 9	Cement stabilized Blend I	530	15	2,484	2.9	2.3	1.4	0.9	565	15	1010	1.2	0.9	0.6	0.5
					20	2,490	2.5	2.1	1.3	0.8		15	5150	8.5	5.8	3.5	2.6
					25	2,516	2.3	2.0	1.2	0.8		15	7240	12.2	8.0	4.7	3.6
					30	2,496	2.1	1.8	1.0	0.5		20	5220	7.6	6.4	3.7	2.8
					15	5,083	6.1	4.8	3.0	1.9		25	4940	6.3	5.0	2.8	2.2
					20	5,030	5.5	4.6	2.8	1.8		30	4900	6.1	4.5	2.5	1.9
					25	4,885	4.8	4.0	2.4	1.4							
					30	5,006	4.3	3.7	2.1	1.1							
					15	9,895	12.8	10.4	6.3	4.0							
					20	9,987	11.7	9.6	5.8	3.6							
					25	9,952	10.9	9.6	4.9	3.0							
					30	10,050	10.7	9.1	8.7	2.3							
0+37.5	℄ Lane 2	Lift 10	Cement stabilized Blend I	1200	15	2,485	1.3	0.9	0.7	0.5	700	15	1020	0.5	0.3	0.3	0.2
					20	2,431	1.2	0.8	0.6	0.5		15	5020	4.2	2.2	1.8	1.4
					25	2,503	1.1	0.7	0.5	0.4		15	7120	7.2	3.3	2.6	2.0
					30	2,510	0.9	0.6	0.4	0.3		20	5120	3.6	1.9	1.5	1.2
					15	4,985	2.7	1.9	1.4	1.1		25	4950	3.1	1.6	1.2	0.9
					20	5,118	2.5	1.8	1.3	0.9		30	4080	2.9	1.5	1.1	0.8
					25	4,969	2.3	1.5	1.1	0.0							
					30	5,068	2.0	1.3	0.9	0.7							
					15	9,934	5.9	4.2	2.9	2.2							
					20	9,968	5.4	3.8	2.6	1.9							
					25	9,787	4.9	3.4	2.3	1.7							
					30	10,269	4.5	3.0	1.9	1.4							
0+37.5	℄ Lane 3	Lift 9	Crushed limestone	430	15	2,583	3.9	2.6	1.6	1.0	381	15	1020	1.5	1.0	0.7	0.4
					20	2,587	3.5	2.5	1.0	1.0		15	4950	10.4	5.7	3.6	2.4
					25	2,563	3.0	2.1	1.5	0.8		15	6970	15.7	8.8	5.2	3.5
					30	2,522	2.8	1.8	1.9	0.7		20	5140	10.3	6.1	3.7	2.6
					15	4,975	8.0	5.4	8.9	2.0		25	4900	8.8	4.8	2.9	2.1
					20	4,970	7.2	4.9	6.1	2.0		30	5000	9.1	4.8	2.7	1.8
					25	5,096	6.5	4.4	4.8	1.7							
					30	4,982	6.2	4.1	1.8	1.4							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 1 (Continued)											
0+37.5	℄ Lane 3	Lift 10	Crushed limestone	1120	15	2,494	1.3	0.9	0.7	0.6	786	15	1040	0.5	0.5	0.3	0.2
					20	2,476	1.2	0.8	0.6	0.5		15	4980	4.2	2.3	1.8	1.4
					25	2,460	1.0	0.7	0.5	0.4		15	7180	7.0	3.5	2.6	2.1
					30	2,488	0.9	0.5	0.4	0.3		20	4930	3.5	2.1	1.6	1.3
					15	4,999	2.8	2.0	1.4	1.1		25	4970	3.1	1.8	1.3	1.0
					20	4,980	2.5	1.7	1.2	0.9		30	4960	2.7	1.4	1.0	0.8
					25	4,980	2.2	1.5	1.0	0.8							
					30	4,964	2.0	1.2	0.8	0.6							
					15	10,106	6.4	4.5	3.1	2.4							
					20	10,092	5.7	3.9	2.6	2.0							
					25	10,028	5.1	3.4	2.2	1.6							
					30	10,070	4.6	2.9	1.7	1.3							
						Item 2											
0+62.5	12.5 R	95.0	Lean clay subgrade	235	15	500	1.2	0.7	0.5	0.2	143	15	850	4.0	1.1	0.8	0.4
					15	2,500	7.2	3.7	1.8	1.2		15	4900	27.0	7.9	3.6	2.2
					15	3,000	11.1	5.2	2.6	1.7		15	6860	40.7	11.3	5.0	3.0
					20	3,050	9.5	5.0	2.5	1.8		20	4880	28.3	8.3	3.9	2.4
					25	3,000	9.1	4.9	2.3	1.4		25	4970	32.3	8.6	4.1	2.5
					30	3,000	8.8	4.7	2.0	1.7		30	4440	30.4	8.2	3.9	2.6
0+62.5	12.5 R	Lift 1	Blend II	330	15	500	1.0	0.5	0.4	0.2	121	15	1100	4.1	1.8	0.9	0.5
					15	2,500	5.0	3.4	1.9	0.9		15	4870	21.5	8.3	4.1	2.3
					15	3,500	8.2	5.4	2.2	1.3		15	6950	38.7	13.0	6.2	3.4
					20	2,500	5.6	4.1	1.6	0.9		20	4920	21.6	9.2	4.5	2.4
					25	2,500	5.6	4.1	1.8	1.2		25	4960	24.7	10.9	5.6	3.1
					30	2,500	5.5	3.8	1.5	0.8		30	4380	22.0	9.4	4.6	2.8
0+62.5	12.5 R	Lift 2	Blend II	370	15	500	0.7	0.5	0.2	0.2	230	15	1030	3.3	1.1	0.7	0.4
					15	2,500	4.9	3.2	1.6	1.0		15	5040	20.6	7.1	4.3	2.5
					15	3,500	7.2	5.1	2.5	1.4		15	6940	28.9	10.4	6.1	3.4
					20	2,500	4.4	3.2	1.6	1.0		20	4960	17.6	7.0	4.3	2.7
					25	2,500	4.4	3.2	1.6	1.0		25	4540	15.9	6.3	3.4	1.8
					30	2,500	3.7	2.9	1.4	1.0		30	2790	8.9	3.9	2.2	1.1

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	12.5 R	Lift 3	Blend II	420	15	500	0.8	0.5	0.2	0.1	278	15	1030	2.0	0.8	0.6	0.4
					15	2,500	4.1	2.7	1.2	0.8		15	4820	12.9	4.3	3.2	2.2
					15	3,500	6.0	3.7	1.8	1.2		15	6740	19.8	6.3	4.5	3.0
					20	2,500	3.6	2.2	1.1	0.7		20	4920	12.7	4.5	3.1	2.1
					25	2,500	3.4	2.2	1.1	0.7		25	5070	13.5	5.1	3.4	2.1
					30	2,500	3.1	1.9	1.1	0.7		30	3660	8.5	3.5	2.5	1.8
0+62.5	12.5 R	Lift 4	Blend II	470	15	500	0.8	0.5	0.2	0.2	400	15	800	1.5	0.6	0.4	0.3
					15	2,500	4.0	2.5	1.2	0.9		15	5010	9.9	4.3	3.0	2.1
					15	3,500	5.7	3.3	1.8	1.2		15	6890	14.6	6.4	4.2	3.0
					20	2,500	2.7	1.8	1.1	0.7		20	5070	9.3	4.4	2.9	2.0
					25	2,500	3.1	1.8	1.1	0.7		25	5020	8.9	4.2	3.0	2.1
					30	2,500	2.8	1.6	1.0	0.7		30	4930	8.6	3.6	2.4	1.7
0+62.5	12.5 R	Lift 5	Blend II	540	15	500	0.7	0.4	0.2	0.1	366	15	1070	1.7	0.7	0.4	0.3
					15	2,500	3.4	2.0	1.1	0.7		15	4930	11.1	3.5	2.0	1.5
					15	3,500	5.0	2.7	1.5	0.1		15	7090	17.0	5.2	3.0	2.2
					20	2,500	2.7	1.5	1.0	0.7		20	4960	10.5	3.6	1.9	1.4
					25	2,500	2.7	1.5	1.0	0.7		25	4970	11.6	4.0	2.2	1.7
					30	2,500	2.7	1.3	0.9	0.7		30	3560	7.1	2.5	1.4	1.2
0+62.5	12.5 R	Lift 6	Blend II	590	15	500	0.5	0.3	0.2	0.2	422	15	960	1.6	0.6	0.4	0.3
					15	2,500	3.1	1.8	0.9	0.7		15	4850	9.9	3.3	1.9	1.6
					15	3,500	4.4	2.6	1.2	1.0		15	6790	14.5	4.8	3.0	2.3
					20	2,500	2.5	1.5	0.8	0.5		20	4980	8.4	3.0	1.8	1.4
					25	2,500	2.2	1.6	0.7	0.5		25	5110	8.7	3.2	1.8	1.4
					30	2,500	2.2	1.6	0.7	0.5		30	5010	8.5	3.2	1.8	1.4
0+62.5	12.5 R	Lift 7	Blend II	610	15	--	--	--	--	--	433	15	910	1.2	0.5	0.3	0.2
					15	2,521	2.6	1.5	0.7	0.6		15	4910	9.3	3.3	2.3	1.4
					15	--	--	--	--	--		15	6990	14.1	5.1	3.3	2.1
					20	2,490	2.2	1.3	0.6	0.5		20	4970	8.5	3.0	1.9	1.2
					25	2,541	2.1	1.2	0.5	0.4		25	5070	8.8	3.1	1.9	1.1
					30	2,533	2.1	1.2	0.5	0.4		30	5040	8.0	2.7	1.4	1.0

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	12.5 R	Lift 8	Blend II	630	15	2,540	2.5	1.3	0.7	0.5	297	15	950	2.3	0.5	0.3	0.2
					20	2,435	2.1	1.0	0.5	0.4		15	4950	11.8	3.1	1.7	1.3
					25	2,516	2.0	0.9	0.4	0.3		15	6910	18.4	4.6	2.5	1.9
					30	2,527	2.0	0.9	0.4	0.3		20	5060	11.9	3.1	1.5	1.1
					15	5,067	5.2	2.7	1.4	1.1		25	5050	11.8	2.9	1.3	1.0
					20	5,115	4.9	2.3	1.2	0.9		30	4620	10.0	2.4	1.1	0.8
					25	5,053	4.7	2.2	1.0	0.6							
					30	5,032	4.6	2.1	1.0	0.6							
0+62.5	12.5 R	Lift 9	Crushed limestone	630	15	2,470	2.2	1.2	2.0	1.7	404	15	1130	1.3	0.5	0.3	0.2
					20	2,488	2.0	1.0	2.0	1.3		15	5050	7.4	2.8	1.6	1.1
					25	2,490	2.0	1.0	1.7	1.8		15	6910	12.0	4.1	2.2	1.5
					30	2,465	2.0	1.0	2.1	0.8		20	4960	6.5	2.6	1.4	0.9
					15	5,004	5.0	2.7	2.8	1.7		25	5170	6.7	2.4	1.2	0.8
					20	5,007	4.6	2.2	5.3	3.1		30	4970	6.4	2.2	1.0	0.6
					25	5,118	4.4	2.0	3.3	2.3							
					30	5,026	4.4	2.0	4.4	1.2							
					15	10,183	11.6	6.0	3.0	2.7							
					20	10,060	10.6	5.1	2.0	1.8							
					25	9,966	10.0	4.8	3.0	2.4							
					30	10,129	10.4	5.1	1.3	2.4							
0+62.5	12.5 R	Lift 10	Crushed limestone	820	15	2,526	1.7	1.0	0.6	0.4	597	15	960	0.6	0.3	0.2	0.2
					20	2,494	1.7	1.0	0.6	0.4		15	5010	5.5	2.6	1.5	1.2
					25	2,551	1.6	0.9	0.5	0.4		15	7220	9.2	3.9	2.2	1.7
					30	2,503	1.5	0.9	0.5	0.3		20	5050	5.0	2.4	1.3	1.0
					15	5,016	3.8	2.3	1.2	0.9		25	5040	4.6	2.2	1.1	0.9
					20	4,968	3.6	2.1	1.1	0.8		30	4970	4.3	2.0	1.0	0.7
					25	4,930	3.3	2.0	1.0	0.7							
					30	5,128	3.3	2.0	1.0	0.7							
					15	9,939	8.3	5.0	2.6	1.8							
					20	9,868	8.0	4.8	2.6	1.8							
					25	10,094	8.0	4.7	2.2	1.6							
					30	9,515	7.8	4.6	2.2	1.6							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	12.5 L	95.0	Lean clay subgrade	240	15	500	1.1	0.7	0.4	0.2	106	15	930	5.1	1.8	1.0	0.5
					15	2,500	7.8	4.0	2.0	1.3		15	4930	26.6	9.5	4.3	2.4
					15	3,500	12.0	5.9	2.8	1.9		15	6910	45.2	14.9	6.2	3.4
					20	3,050	10.3	5.7	2.7	1.9		20	4950	25.9	10.3	5.0	2.8
					25	3,050	10.5	6.4	3.3	2.3		25	4940	27.3	11.3	5.5	3.1
					30	2,050	8.8	6.0	3.0	2.3		30	4290	23.1	9.8	5.4	3.4
0+62.5	12.5 L	Lift 1	Blend II	325	15	500	1.0	0.7	0.6	0.2	145	15	1120	3.5	1.7	1.0	0.6
					15	2,500	5.6	3.9	2.1	1.0		15	4930	20.7	8.3	4.6	2.7
					15	3,500	8.5	5.7	3.0	1.5		15	6970	34.7	13.0	7.4	4.0
					20	2,500	5.8	3.8	2.0	1.0		20	5080	22.7	9.8	5.5	3.2
					25	2,500	5.6	4.0	2.1	1.1		25	4960	23.7	10.9	6.6	3.9
					30	2,500	4.7	3.2	1.7	1.2		30	3670	15.5	6.6	3.8	2.6
0+62.5	12.5 L	Lift 2	Blend II	380	15	500	0.8	0.7	0.2	0.2	294	15	980	2.3	1.1	0.7	0.4
					15	2,500	4.8	3.3	1.7	1.0		15	4870	17.0	7.6	4.8	2.8
					15	3,500	7.1	5.0	2.5	1.4		15	6900	23.9	10.9	6.9	4.0
					20	2,500	4.8	3.3	1.8	1.0		20	4920	15.6	7.6	4.8	2.9
					25	2,500	4.5	3.3	1.8	1.0		25	4980	16.7	8.1	4.9	3.1
					30	2,500	3.8	2.7	1.3	1.0		30	3770	10.9	5.4	3.3	2.4
0+62.5	12.5 L	Lift 3	Blend II	400	15	500	0.8	0.6	0.3	0.2	347	15	1010	1.9	0.8	0.6	0.4
					15	2,500	4.7	2.8	1.4	1.0		15	4900	12.7	6.5	3.7	2.3
					15	3,500	7.2	4.1	2.1	1.5		15	6880	18.4	9.4	5.5	3.3
					20	2,500	4.3	2.5	1.3	1.5		20	5110	11.9	6.2	3.5	2.1
					25	2,500	4.0	2.4	1.2	1.5		25	5080	11.1	6.1	3.8	2.3
					30	2,500	3.5	2.0	1.2	1.5		30	5190	10.3	5.1	3.2	2.2
0+62.5	12.5 L	Lift 4	Blend II	510	15	500	0.7	1.0	2.5	0.2	380	15	900	1.5	0.7	0.4	0.3
					15	2,500	3.7	2.1	1.4	0.9		15	4950	10.6	4.6	3.0	2.4
					15	3,500	5.2	3.0	2.0	1.3		15	6890	15.7	6.4	4.3	3.3
					20	2,500	2.9	1.5	1.0	0.7		20	4840	8.9	3.9	2.6	1.9
					25	2,500	2.8	1.6	1.0	0.7		25	4920	8.4	3.7	2.3	1.7
					30	2,500	2.4	1.3	0.8	0.7		30	4940	7.6	4.0	2.0	1.7

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	12.5 L	Lift 5	Blend II	550	15	500	0.7	0.3	0.2	0.1	429	15	1010	1.3	0.5	0.4	0.4
					15	2,500	3.5	1.8	1.1	0.9		15	4860	10.6	3.5	2.4	1.9
					15	3,500	5.0	2.7	1.7	1.2		15	7090	15.8	5.5	3.6	2.9
					20	2,500	2.8	1.5	1.0	0.6		20	4980	9.2	3.5	2.3	1.7
					25	2,500	2.5	1.4	1.0	0.6		25	5040	9.7	3.8	2.5	1.9
					30	2,500	2.3	1.2	0.9	0.6		30	4670	7.8	2.9	1.9	1.6
0+62.5	12.5 L	Lift 6	Blend II	610	15	500	0.6	0.4	0.3	0.1	468	15	890	1.2	0.5	0.3	0.2
					15	2,500	3.1	1.3	1.0	0.8		15	4960	10.9	3.9	2.5	2.0
					15	3,500	4.5	1.5	1.5	1.0		15	7020	15.3	5.1	3.2	2.5
					20	2,500	2.5	1.5	0.9	0.7		20	5040	9.6	3.4	2.1	1.7
					25	2,500	2.3	1.2	0.8	0.7		25	4970	9.2	3.3	2.1	1.6
					30	2,500	2.1	1.2	0.8	0.5		30	4370	7.3	2.5	1.4	1.2
0+62.5	12.5 L	Lift 7	Blend II	620	15	--	--	--	--	--	450	15	980	1.2	0.4	0.2	0.2
					15	2,547	2.6	1.8	0.9	0.7		15	4940	8.4	3.4	1.9	1.5
					15	--	--	--	--	--		15	7010	13.0	5.2	2.8	2.1
					20	2,494	2.1	1.3	0.7	0.5		20	4880	7.8	3.1	1.6	1.2
					25	2,548	2.1	1.3	0.6	0.4		25	5050	8.2	3.0	1.4	1.1
					30	2,501	2.0	1.2	0.5	0.4		30	4940	8.3	2.9	1.3	1.0
0+62.5	12.5 L	Lift 8	Blend II	640	15	2,446	2.3	1.3	0.6	0.4	530	15	1050	1.4	0.6	0.3	0.2
					20	2,570	2.1	1.1	0.5	0.4		15	4900	7.2	2.9	1.6	1.2
					25	2,526	2.0	1.0	0.4	0.2		15	7020	11.0	4.3	2.3	1.8
					30	2,492	2.0	1.0	0.3	0.2		20	5010	7.2	2.8	1.5	1.1
					15	5,103	5.0	2.8	1.2	1.0		25	4960	6.7	2.5	1.3	1.0
					20	5,021	4.7	2.6	0.9	0.7		30	5070	7.0	2.4	1.1	0.8
					25	5,025	4.6	2.4	0.8	0.5							
					30	5,062	4.4	2.3	0.8	0.6							
					15	10,165	11.6	6.2	2.5	1.9							
					20	9,960	10.6	5.6	1.9	1.4							
					25	10,014	10.5	5.7	1.9	1.2							
					30	10,188	12.2	6.8	1.6	1.1							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	℄ Lane 2	Lift 9	Cement stabilized Blend II	670	15	2,557	2.2	1.0	0.6	0.3	605	15	1080	0.9	0.4	0.3	0.2
					20	2,490	2.0	1.0	0.4	0.3		15	4910	6.7	3.5	1.8	1.3
					25	2,494	2.0	0.9	0.4	0.2		15	7150	10.4	5.1	2.7	2.5
					30	2,470	1.9	0.9	0.3	0.2		20	5090	6.6	3.2	1.5	1.2
					15	4,912	4.7	2.2	1.1	0.9		25	4900	7.0	3.0	1.4	1.0
					20	4,951	4.4	2.1	1.0	0.7		30	4740	6.6	2.7	1.2	1.2
					25	4,888	4.2	2.0	0.9	0.7							
					30	4,937	4.1	1.9	0.8	0.6							
					15	9,953	10.7	5.1	2.4	1.8							
					20	9,941	10.0	4.8	2.1	1.4							
					25	10,019	9.9	4.6	2.0	1.3							
					30	9,968	9.7	4.4	1.8	1.1							
0+62.5	℄ Lane 2	101.0	Cement stabilized Blend II	930	15	2,564	1.5	1.0	0.5	0.4	518	15	1050	0.6	0.3	0.2	0.2
					20	2,507	1.4	0.9	0.5	0.3		15	5010	4.8	4.3	1.6	1.0
					25	2,494	1.3	0.8	0.4	0.3		15	7030	8.7	7.1	2.4	1.5
					30	2,543	1.3	0.8	0.4	0.2		20	5080	4.7	4.1	1.5	0.9
					15	5,047	3.4	2.1	1.1	0.8		25	5050	4.5	4.4	1.4	0.8
					20	5,059	3.1	2.0	1.0	0.7		30	5170	4.3	3.7	1.3	0.8
					25	5,015	3.0	2.0	0.9	0.6							
					30	5,043	3.0	1.9	0.8	0.5							
					15	9,929	7.5	4.9	2.4	1.6							
					20	10,052	7.2	4.6	2.2	1.5							
					25	9,793	7.0	4.5	2.0	1.3							
					30	9,765	6.8	4.4	1.9	1.1							
0+62.5	℄ Lane 3	Lift 9	Crushed limestone	630	15	2,475	2.1	11.1	0.7	0.6	297	15	990	1.7	0.7	0.4	0.3
					20	2,527	2.0	1.0	0.7	0.4		15	5050	12.7	3.4	1.9	1.3
					25	2,525	1.9	1.0	0.6	0.4		15	7040	19.4	5.1	2.7	1.9
					30	2,509	1.7	0.8	0.4	0.3		20	4990	10.7	3.1	1.7	1.2
					15	4,998	4.8	2.7	1.6	1.1		25	4910				
					20	4,962	4.4	2.2	1.3	1.0		30	4730				
					25	5,073	4.1	2.0	1.1	1.0							
					30	4,952	3.9	1.8	0.9	0.7							
					15	9,940	11.0	5.7	3.2	2.4							
					20	10,070	10.3	5.2	2.9	2.1							
					25	10,040	9.6	4.5	2.3	1.9							
					30	10,108	9.2	4.2	2.0	1.4							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+62.5	℄ Lane 3	101.0	Crushed limestone	860	15	2,453	1.6	1.0	0.6	0.5	597	15	960	0.6	0.3	0.2	0.2
					20	2,384	1.4	0.8	0.5	0.3		15	5010	5.5	2.6	1.5	1.2
					25	2,495	1.3	0.7	0.4	0.3		15	7220	9.2	3.9	2.2	1.7
					30	2,553	1.3	0.7	0.3	0.2		20	5050	5.0	2.4	1.3	1.0
					15	4,877	3.4	2.0	1.2	0.9		25	5040	4.6	2.2	1.1	0.9
					20	5,113	3.3	2.0	1.0	0.8		30	4970	4.3	2.0	1.0	0.7
					25	4,754	3.0	1.8	0.9	0.7							
					30	4,795	2.9	1.6	0.8	0.5							
					15	9,896	8.0	4.8	2.6	1.9							
					20	10,043	7.5	4.4	2.2	1.6							
					25	9,532	7.3	4.3	2.0	1.4							
					30	10,288	7.3	4.1	1.8	1.2							
0+87.5	12.5 R	95.0	Lean clay subgrade	235	15	500	1.3	0.6	0.4	0.2	130	15	920	3.1	1.3	0.6	0.4
					15	2,500	7.6	3.8	1.8	1.1		15	5170	26.6	9.9	3.8	2.2
					15	3,500	11.5	5.7	2.4	1.7		15	6980	40.5	13.9	5.3	3.1
					20	2,950	10.1	6.0	2.6	1.8		20	4810	26.7	10.4	4.2	2.4
					25	3,000	9.8	5.8	1.5	1.8		25	4910	29.0	10.5	4.6	3.0
					30	3,000	9.6	5.2	2.1	1.4		30	4260	26.7	10.4	4.3	3.0
0+87.5	12.5 R	Lift 1	Blend II	310	15	500	0.9	0.4	0.6	0.2	125	15	1030	3.4	1.5	0.8	0.4
					15	2,500	5.3	2.6	2.1	0.9		15	4800	21.3	8.8	4.3	2.6
					15	3,500	8.2	4.6	2.8	1.4		15	6890	38.0	13.9	6.4	3.7
					20	2,500	5.6	3.4	1.6	1.0		20	5000	22.9	10.0	5.0	2.9
					25	2,500	5.5	3.7	2.0	1.2		25	4910	24.5	11.0	5.6	3.5
					30	2,500	4.9	3.3	1.7	1.1		30	4400	22.1	10.1	4.8	3.3
0+87.5	12.5 R	Lift 2	Blend II	380	15	500	0.9	0.6	0.5	0.2	231	15	1010	2.4	1.2	0.8	0.4
					15	2,500	4.7	3.1	1.7	0.9		15	4900	17.4	8.8	4.9	3.0
					15	3,500	7.0	4.8	2.5	1.3		15	6860	25.9	12.5	7.1	4.2
					20	2,500	4.5	2.9	1.7	1.0		20	4980	16.9	8.6	4.9	2.9
					25	2,500	4.5	3.1	1.8	1.0		25	5030	18.0	9.0	4.9	2.3
					30	2,500	3.8	2.5	1.5	1.0		30	4590	16.2	8.9	5.2	2.9

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	12.5 R	Lift 3	Blend II	390	15	500	0.7	0.6	2.5	0.1	284	15	970	2.5	0.8	0.5	0.4
					15	2,500	4.2	2.6	1.4	1.0		15	5010	14.6	6.4	3.8	2.6
					15	3,500	6.1	3.8	2.0	1.4		15	6890	21.2	8.7	5.2	3.4
					20	2,500	3.8	3.3	1.3	0.8		20	5220	13.6	6.6	4.1	2.6
					25	2,500	3.5	3.3	1.3	0.8		25	5300	13.4	6.7	4.0	2.2
					30	2,500	3.2	3.3	1.3	0.8		30	4410	10.3	5.2	3.3	2.0
0+87.5	12.5 R	Lift 4	Blend II	490	15	500	0.7	0.3	0.3	0.1	408	15	810	1.4	0.6	0.4	0.3
					15	2,500	3.6	2.2	1.3	0.9		15	4910	10.1	4.5	2.8	2.0
					15	3,500	5.2	3.1	3.1	1.3		15	6990	15.2	6.5	3.9	2.9
					20	2,500	2.9	1.6	1.1	0.8		20	4810	9.0	4.0	2.4	1.7
					25	2,500	2.8	1.6	1.2	0.8		25	5000	8.5	4.1	2.7	2.0
					30	2,500	2.3	1.3	0.8	0.8		30	5100	7.8	3.5	2.0	1.6
0+87.5	12.5 R	Lift 5	Blend II	530	15	500	0.6	0.3	0.2	0.1	300	15	970	1.3	0.6	0.4	0.3
					15	2,500	3.1	1.5	0.9	0.8		15	5020	9.1	3.5	2.2	1.7
					15	3,500	4.7	2.2	1.4	1.0		15	6850	15.2	5.4	3.4	2.4
					20	2,500	2.5	1.3	0.8	0.6		20	4950	9.4	3.4	2.2	1.5
					25	2,500	2.5	1.3	0.8	0.6		25	5060	8.5	3.4	2.1	1.5
					30	2,500	2.3	1.2	0.8	0.6		30	4850	7.7	3.2	2.0	1.5
0+87.5	12.5 R	Lift 6	Blend II	560	15	500	0.5	0.3	0.2	0.1	396	15	950	1.3	0.4	0.3	0.3
					15	2,500	2.9	1.6	0.9	0.7		15	5010	9.8	2.3	2.0	1.7
					15	3,500	4.3	2.3	1.3	1.0		15	6990	14.8	8.9	3.1	2.5
					20	2,500	2.5	1.4	0.8	0.7		20	5000	8.6	2.8	1.8	1.3
					25	2,500	2.3	1.3	0.8	0.7		25	5010	8.2	2.8	1.7	1.1
					30	2,500	2.3	1.3	0.8	0.4		30	4830	7.7	4.3	1.7	1.2
0+87.5	12.5 P	Lift 7	Blend II	620	15	--	--	--	--	--	365	15	990	1.6	0.5	0.3	0.2
					15	2,215	2.5	1.5	0.8	0.6		15	5140	11.9	3.2	2.1	1.6
					15	--	--	--	--	--		15	6930	16.8	4.5	2.9	2.2
					20	2,503	2.1	1.3	0.7	0.5		20	5050	10.5	1.7	1.8	1.4
					25	2,570	2.0	1.2	0.5	0.4		25	5000	10.2	2.6	1.5	1.1
					30	2,516	2.0	1.2	0.5	0.4		30	4430	8.6	2.1	1.3	0.9

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	12.5 R	Lift 8	Blend II	660	15	2,428	2.3	1.4	0.7	0.6	426	15	950	1.7	0.6	0.3	0.2
					20	2,557	2.1	1.2	0.6	0.5		15	5010	8.6	3.2	1.7	1.3
					25	2,528	2.0	1.1	0.5	0.3		15	7010	13.3	4.9	2.4	1.8
					30	2,490	2.0	1.1	0.4	0.3		20	5010	8.0	2.9	1.4	1.1
					15	4,933	5.0	3.0	1.4	1.1		25	5040	8.1	2.8	1.2	0.9
					20	4,977	4.6	2.6	1.1	1.0		30	4950	9.2	2.7	1.2	0.9
					25	5,057	4.6	2.8	1.0	0.8							
					30	5,050	4.3	2.1	1.0	0.8							
					15	10,078	11.7	6.8	3.1	2.6							
					20	10,147	10.7	5.8	2.6	2.0							
					25	9,955	10.6	5.2	2.4	2.0							
					30	10,381	12.2	7.4	2.2	1.8							
0+87.5	12.5 R	Lift 9	Crushed limestone	520	15	2,468	2.5	1.3	0.7	0.6	409	15	1140	1.5	0.6	0.3	0.3
					20	2,510	2.4	1.2	0.7	0.6		15	4900	9.0	3.5	1.9	1.3
					25	2,543	2.3	1.1	0.6	0.4		15	7110	14.4	5.5	2.8	2.0
					30	2,523	2.3	1.1	0.6	0.4		20	4980	9.1	3.4	1.8	1.2
					15	4,955	5.8	3.0	1.6	1.1		25	4970	9.4	3.5	1.8	1.2
					20	5,005	5.6	2.8	1.3	1.0		30	4980	9.8	3.4	1.9	1.3
					25	5,023	5.4	2.7	1.2	1.0							
					30	4,892	5.4	2.8	1.2	1.0							
					15	10,022	14.1	6.8	3.3	2.4							
					20	10,037	13.2	6.2	3.0	2.3							
					25	9,395	12.6	6.0	2.8	2.0							
					30	10,051	25.0	7.2	3.0	2.4							
0+87.5	12.5 R	101.0	Crushed limestone	610	15	2,525	2.1	1.4	0.7	0.3	480	15	970	1.2	0.4	0.2	0.2
					20	2,498	2.0	1.3	0.6	0.3		15	4920	7.3	2.3	1.3	0.9
					25	2,538	2.0	1.2	0.4	0.2		15	7270	12.2	3.6	1.9	1.3
					30	2,516	2.0	1.2	0.3	0.1		20	5080	7.3	2.3	1.3	0.9
					15	4,984	4.8	3.1	1.2	0.8		25	5090	6.8	2.2	1.2	0.9
					20	5,076	4.7	3.0	1.1	0.8		30	5040	6.6	2.0	1.0	0.7
					25	5,000	4.7	3.0	1.0	0.6							
					30	4,888	4.4	3.0	0.9	0.3							
					15	10,003	10.9	7.0	2.6	1.4							
					20	10,027	10.8	6.9	2.3	1.4							
					25	9,846	11.3	7.7	2.0	1.0							
					30	--	--	--	--	--							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	12.5 L	95.0	Lean clay subgrade	260	15	500	1.0	0.7	0.4	0.2	145	15	880	4.2	1.4	0.7	--
					15	2,500	7.0	2.7	1.7	1.3		15	4980	28.6	8.2	4.0	--
					15	3,000	10.4	5.5	2.4	1.7		15	7000	42.5	12.5	5.9	--
					20	3,050	9.0	5.3	2.2	1.8		20	4980	29.4	9.5	4.8	--
					25	3,000	8.7	5.2	2.2	1.7		25	4880	30.3	9.6	4.8	--
					30	3,050	8.0	4.6	1.8	1.5		30	4210	26.1	8.1	4.3	--
0+87.5	12.5 L	Lift 1	Blend II	285	15	500	0.9	0.6	0.4	0.3	143	15	1030	3.9	1.8	0.9	0.5
					15	2,500	6.0	3.6	1.9	1.9		15	4850	22.7	8.6	4.2	2.5
					15	3,500	8.6	5.4	2.7	1.9		15	7100	38.4	14.0	6.7	3.9
					20	2,500	6.3	3.9	1.8	2.0		20	5080	23.9	9.7	4.9	2.9
					25	2,500	5.5	4.0	2.1	2.1		25	4940	25.0	10.5	5.5	3.2
					30	2,500	5.3	3.7	1.9	1.3		30	4170	20.3	7.9	3.9	2.7
0+87.5	12.5 L	Lift 2	Blend II	340	15	500	1.0	0.6	0.2	0.2	215	15	1010	2.4	2.2	4.4	6.9
					15	2,500	5.3	3.1	1.5	0.9		15	5030	18.7	8.5	4.9	65.8
					15	3,500	7.8	4.7	2.3	1.4		15	6940	27.6	11.8	6.6	80.8
					20	2,500	5.1	3.2	1.7	1.0		20	4920	18.0	8.1	4.6	4.2
					25	2,500	4.9	3.0	1.7	1.0		25	4970	19.4	8.8	4.9	2.8
					30	2,500	4.2	2.7	1.3	1.0		30	3810	13.9	6.1	3.6	2.4
0+87.5	12.5 L	Lift 3	Blend II	430	15	500	7.5	2.5	0.2	0.2	304	15	1030	1.9	0.8	0.5	0.4
					15	2,500	4.2	2.7	1.3	1.0		15	5110	13.0	5.8	3.6	2.4
					15	3,500	6.0	4.0	2.0	1.3		15	6840	18.7	8.4	5.3	3.4
					20	2,500	3.5	2.3	1.2	7.5		20	5020	11.6	5.3	3.3	2.0
					25	2,500	3.2	2.2	1.0	0.7		25	5110	11.4	4.7	3.2	2.1
					30	2,500	2.7	2.0	1.1	0.7		30	4900	10.1	4.1	2.7	1.9
0+87.5	12.5 L	Lift 4	Blend II	480	15	500	0.7	0.5	0.5	0.2	385	15	910	1.5	0.7	0.5	0.3
					15	2,500	3.6	1.4	1.4	1.4		15	4950	10.7	4.9	2.9	2.1
					15	3,500	5.3	3.3	3.5	2.0		15	6720	15.3	7.1	4.2	3.0
					20	2,500	3.0	1.9	1.9	1.0		20	4950	9.4	4.3	2.4	1.8
					25	2,500	2.8	1.7	1.7	1.1		25	4900	8.5	3.7	2.3	1.6
					30	2,500	2.5	1.5	1.5	0.8		30	4970	7.7	3.2	2.0	1.5

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	12.5 L	Lift 5	Blend II	560	15	500	0.5	0.3	0.2	0.1	406	15	990	1.4	1.0	0.4	0.3
					15	2,500	3.1	1.7	1.1	0.7		15	4880	9.8	3.5	2.2	1.6
					15	3,500	4.5	2.7	1.5	1.0		15	6910	14.8	5.1	3.1	2.3
					20	2,500	2.5	1.5	0.9	0.7		20	4870	9.0	3.4	2.1	1.5
					25	2,500	2.4	1.5	0.7	0.7		25	5010	8.9	3.8	2.3	1.7
					30	2,500	2.1	1.2	0.7	0.5		30	5120	8.9	3.3	1.8	1.3
0+87.5	12.5 L	Lift 6	Blend II	630	15	500	0.5	0.2	0.2	0.1	342	15	990	1.6	0.4	0.2	0.2
					15	2,500	2.9	1.6	0.8	0.7		15	4990	8.6	2.7	1.8	1.4
					15	3,500	4.2	2.3	1.2	0.9		15	6870	14.1	4.4	2.8	2.0
					20	2,500	2.5	1.5	0.7	0.6		20	4980	8.1	3.0	1.8	1.3
					25	2,500	2.3	1.4	0.7	0.6		25	4960	8.6	3.2	1.8	1.3
					30	2,500	2.2	1.2	0.6	0.4		30	4930	8.0	2.8	1.4	1.0
0+87.5	12.5 L	Lift 7	Blend II	660	15	--	--	--	--	--	465	15	940	1.1	0.4	0.2	0.1
					15	2,466	2.3	1.3	0.8	0.7		15	5020	8.7	3.3	2.0	1.5
					15	--	--	--	--	--		15	7020	13.0	4.9	2.9	2.2
					20	2,527	2.1	1.1	0.7	0.4		20	4950	7.9	3.0	1.7	1.2
					25	2,538	2.0	1.0	0.4	0.3		25	5110	7.8	2.8	1.5	1.1
					30	2,498	1.9	1.0	0.4	0.3		20	5040	8.0	2.7	1.4	1.0
0+87.5	12.5 L	Lift 8	Blend II	670	15	2,456	2.0	1.1	0.7	0.4	502	15	1030	1.3	0.5	0.3	0.2
					20	2,651	2.0	1.0	0.6	0.3		15	4970	8.2	2.9	1.7	1.3
					25	2,562	1.9	1.0	0.4	0.3		15	6980	12.2	4.4	2.4	1.8
					30	2,533	1.8	0.9	0.3	0.2		20	5020	7.5	2.6	1.4	1.0
					15	4,973	4.7	2.6	1.2	1.0		25	4980	7.0	2.4	1.2	0.8
					20	5,033	4.3	2.2	1.0	0.8		30	5110	7.4	2.3	1.1	0.8
					25	5,035	4.2	2.1	1.0	0.7							
					30	4,978	4.0	2.0	0.8	0.7							
					15	10,095	10.9	5.7	2.7	2.0							
					20	10,034	10.0	5.1	2.2	1.7							
					25	10,154	10.0	5.0	2.1	1.6							
					30	10,112	9.9	4.9	1.8	1.3							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	℄ Lane 2	Lift 9	Cement stabilized Blend II	530	15	2,524	2.8	1.3	0.8	0.4	573	15	1090	1.3	0.6	0.3	0.2
					20	2,499	2.6	1.3	0.7	0.4		15	5140	8.6	3.4	1.7	1.1
					25	2,481	2.6	1.3	0.7	0.4		15	7090	12.0	4.8	2.4	1.6
					30	2,464	2.4	1.2	0.7	0.4		20	5240	7.3	3.3	1.6	1.0
					15	5,084	6.2	3.2	1.6	1.0		25	5160	7.0	3.3	1.6	0.5
					20	4,964	5.8	3.0	1.4	1.0		30	4890	6.8	3.1	1.4	0.8
					25	4,948	5.8	3.1	1.4	1.0							
					30	5,039	5.9	3.1	0.8	1.0							
0+87.5	℄ Lane 2	101.0	Cement stabilized Blend II	920	15	2,473	1.4	1.0	0.6	0.3	570	15	1010	0.6	0.3	0.2	0.2
					20	2,444	1.4	1.0	0.6	0.3		15	4940	5.2	2.6	1.7	1.1
					25	2,523	1.3	1.0	0.4	0.2		15	6820	8.5	3.7	2.5	1.5
					30	2,502	1.3	0.9	0.4	0.1		20	5030	5.0	2.5	1.6	0.9
					15	5,002	3.3	2.4	1.2	0.8		25	5020	4.7	2.3	1.5	0.8
					20	5,016	3.1	2.3	1.1	0.7		30	5170	4.5	2.3	1.4	0.7
					25	4,998	3.0	2.1	1.0	0.6							
					30	4,969	3.0	2.1	1.0	0.4							
					15	9,969	7.4	5.4	2.6	1.4							
					20	9,960	7.2	5.2	2.3	1.2							
					25	9,761	7.0	5.0	2.4	1.0							
					30	10,014	7.0	5.0	1.7	0.9							
0+87.5	℄ Lane 3	Lift 9	Crushed limestone	630	15	2,447	2.2	1.3	0.8	0.6	518	15	1110	1.4	0.6	0.4	0.3
					20	2,431	2.0	1.1	0.7	0.4		15	5000	8.2	3.0	1.9	1.4
					25	2,501	1.9	1.0	0.6	0.4		15	6970	12.0	4.4	2.7	2.1
					30	2,479	1.8	1.0	0.4	0.3		20	5260	7.8	3.0	1.8	1.4
					15	4,995	5.0	2.9	1.6	1.1		25	5070	7.2	2.7	1.5	1.2
					20	5,000	4.7	2.7	1.3	1.0		30	4980	6.8	2.3	1.3	0.9
					25	5,056	4.2	2.3	1.1	0.9							
					30	4,972	4.0	2.1	1.0	0.7							
					15	9,991	11.6	6.4	3.0	2.3							
					20	10,064	10.8	6.0	3.0	2.0							
					25	9,987	9.8	5.2	2.4	1.8							
					30	9,929	9.6	5.0	2.0	1.3							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 2 (Continued)											
0+87.5	℄ Lane 3	101.0	Crushed limestone	880	15	2,495	1.6	1.0	0.6	0.4	642	15	980	0.7	0.3	0.2	0.2
					20	2,461	1.3	0.8	0.4	0.3		15	4920	5.6	2.4	1.4	1.0
					25	2,424	1.2	0.8	0.4	0.2		15	6910	8.7	3.6	2.1	1.5
					30	2,457	1.2	0.7	0.3	0.2		20	4990	5.1	2.2	1.2	0.8
					15	4,935	3.2	2.0	1.1	0.9		25	4960	4.8	2.3	1.1	0.8
					20	5,079	3.0	1.9	1.0	0.8		30	4910	4.8	2.3	1.0	0.7
					25	5,018	3.0	1.7	0.9	0.7							
					30	5,025	2.9	1.6	0.8	0.6							
					15	9,976	7.7	4.6	2.6	1.9							
					20	10,037	7.1	4.1	2.1	1.6							
					25	9,938	6.9	3.9	2.0	1.3							
					30	9,948	6.8	3.8	1.8	1.1							
						Item 3											
1+12.5	12.5 R	95.0	Lean clay subgrade	210	15	500	1.2	0.7	0.5	0.2	97	15	850	4.7	1.8	0.9	0.4
					15	2,500	8.4	4.8	2.0	1.2		15	4980	33.7	13.0	4.5	2.5
					15	3,500	13.1	7.2	2.9	1.8		15	6820	52.1	19.1	6.2	3.5
					20	2,950	11.3	6.5	2.7	1.9		20	5010	41.1	15.6	5.6	3.2
					25	3,000	11.6	6.8	3.4	2.7		25	5050	44.0	18.9	7.2	4.1
					30	2,950	11.5	7.2	3.2	2.3		30	3810	34.2	15.8	5.8	3.9
1+12.5	12.5 R	Lift 1	Blend II	300	15	500	0.9	0.7	0.6	0.2	119	15	930	3.6	1.8	0.9	0.5
					15	2,500	6.2	4.2	2.3	1.1		15	4960	23.9	11.3	4.6	--
					15	3,500	9.3	6.2	3.2	1.6		15	6930	40.4	17.7	8.4	4.3
					20	2,500	6.4	4.5	0.2	0.1		20	5020	25.1	12.6	6.7	3.7
					25	2,500	6.1	4.7	2.7	1.6		25	5000	26.3	14.2	7.3	5.1
					30	2,500	5.5	3.9	2.0	1.4		30	4240	22.6	12.8	6.2	3.8
1+12.5	12.5 R	Lift 2	Blend II	370	15	500	0.9	0.6	0.5	0.1	225	15	1050	2.5	1.0	0.7	0.5
					15	2,500	4.8	3.2	1.7	0.9		15	4950	17.1	7.8	5.1	3.1
					15	3,500	7.3	4.8	2.7	1.4		15	6910	25.8	11.2	7.5	4.3
					20	2,500	4.7	3.2	1.7	1.0		20	4830	16.4	8.0	5.4	3.6
					25	2,500	4.2	3.2	1.7	1.0		25	4920	16.5	7.3	4.8	2.5
					30	2,500	3.5	2.5	1.5	1.0		30	3300	9.8	4.6	3.4	2.0

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+12.5	12.5 R	Lift 3	Blend II	420	15	500	0.7	0.5	0.2	0.1	323	15	950	1.8	0.8	0.6	0.5
					15	2,500	4.4	2.7	0.1	0.9		15	4940	12.9	5.5	4.0	2.6
					15	3,500	6.5	4.1	2.0	1.3		15	7010	19.3	8.0	5.8	3.6
					20	2,500	3.9	2.5	1.2	0.8		20	5060	12.3	6.0	4.3	2.9
					25	2,500	3.5	2.4	1.1	0.7		25	5010	11.1	5.6	3.6	2.0
					30	2,500	3.0	1.8	0.9	0.7		30	4250	8.2	4.1	3.0	1.7
1+12.5	12.5 R	Lift 4	Blend II	600	15	500	0.6	0.4	0.2	0.1	380	15	970	1.7	0.8	0.5	0.4
					15	2,500	3.5	2.1	1.3	0.7		15	4940	10.1	4.7	3.0	3.1
					15	3,500	5.1	3.0	1.8	1.2		15	6840	15.1	6.8	4.3	4.6
					20	2,500	2.9	1.7	1.0	0.6		20	4880	9.0	4.3	2.8	2.1
					25	2,500	2.6	1.3	1.2	0.6		25	4980	8.3	--	2.5	2.0
					30	2,500	2.2	1.2	0.7	0.6		30	4960	8.0	3.6	2.2	1.7
1+12.5	12.5 R	Lift 5	Blend II	530	15	500	0.6	0.3	0.2	0.1	297	15	1010	1.5	0.7	0.4	0.3
					15	2,500	3.2	1.6	1.0	0.7		15	5000	11.0	4.2	2.4	1.6
					15	3,500	4.7	2.3	1.4	1.0		15	7050	17.9	5.9	3.4	2.3
					20	2,500	2.6	1.4	0.9	0.6		20	5050	9.0	3.6	2.2	1.3
					25	2,500	2.2	1.2	0.7	0.5		25	5050	8.8	3.3	1.8	1.2
					30	2,500	2.1	1.0	0.7	0.5		30	4760	7.8	2.8	1.8	1.3
1+12.5	12.5 R	Lift 6	Blend II	590	15	500	0.5	0.2	0.1	0.1	389	15	920	1.2	0.5	0.2	0.2
					15	2,500	3.1	1.4	0.7	0.5		15	4900	10.1	3.6	2.0	1.2
					15	3,500	4.6	2.0	1.1	7.5		15	6960	15.4	5.2	3.0	1.8
					20	2,500	2.6	1.2	0.7	0.5		20	5050	10.0	3.4	1.8	1.1
					25	2,500	2.2	1.0	0.5	0.4		25	4940	9.0	3.0	1.5	0.9
					30	2,500	2.2	1.0	0.5	0.4		30	4090	6.7	2.4	1.3	0.8
1+12.5	12.5 R	Lift 7	Blend II	630	15	--	--	--	--	--	391	15	990	1.4	0.4	0.2	0.2
					15	2,576	2.4	1.4	0.8	0.6		15	5090	10.5	3.5	2.0	1.5
					15	--	--	--	--	--		15	6890	15.1	4.8	2.7	2.1
					20	2,512	2.1	1.1	0.6	0.4		20	4980	9.4	3.0	1.6	1.2
					25	2,550	2.0	1.1	0.4	0.3		25	5100	9.5	3.0	1.4	1.0
					30	2,517	1.9	1.0	0.4	0.3		30	4680	8.2	2.5	1.2	0.9

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+12.5	12.5 R	Lift 8	Blend II	650	15	2,529	2.2	1.3	0.7	0.6	588	15	920	1.2	0.4	0.3	0.2
					20	2,506	2.0	1.0	0.6	0.4		15	4870	8.5	3.2	1.7	1.2
					25	2,520	2.0	1.0	0.4	0.3		15	6870	11.6	4.4	2.4	1.7
					30	2,466	1.9	1.0	0.3	0.2		20	5020	7.6	2.9	1.5	1.0
					15	5,054	4.8	2.8	1.2	1.0		25	5090	7.5	2.7	1.3	0.8
					20	5,008	4.4	2.3	1.0	0.9		30	5020	7.6	2.7	1.3	0.7
					25	5,021	4.3	2.3	1.0	0.7							
					30	5,049	4.2	2.4	0.9	0.6							
					15	10,075	11.0	6.0	2.7	2.0							
					20	10,162	10.2	5.4	2.1	1.7							
					25	9,952	10.1	5.4	2.0	1.4							
					30	10,327	14.2	6.1	2.0	1.2							
1+12.5	12.5 R	Lift 9	Blend II	680	15	2,470	2.0	1.2	0.6	0.4	373	15	1070	1.4	0.5	0.3	0.2
					20	2,595	2.0	1.0	0.6	0.4		15	4910	8.2	2.6	1.5	1.1
					25	2,566	1.9	1.0	0.4	0.3		15	7000	13.8	4.3	2.3	1.7
					30	2,514	1.8	1.0	0.4	0.3		20	4970	7.5	2.5	1.3	1.0
					15	4,839	4.6	2.7	1.1	1.0		25	5030	7.4	2.4	1.2	0.8
					20	4,886	4.2	2.2	1.0	0.9		30	5110	7.4	2.3	1.1	0.8
					25	5,035	4.1	2.1	0.9	0.7							
					30	4,973	4.0	2.1	0.9	0.7							
					15	9,906	10.8	5.7	2.4	2.0							
					20	9,940	10.0	5.1	2.1	1.8							
					25	10,291	10.0	5.1	1.9	1.3							
					30	9,971	9.3	5.0	2.0	1.3							
1+12.5	12.5 R	101.0	Blend II	670	15	2,528	2.1	1.0	0.6	0.4	415	15	1030	0.7	0.2	0.2	0.1
					20	2,489	2.0	1.0	0.4	0.3		15	4920	4.4	1.5	1.2	0.9
					25	2,546	1.9	0.9	0.4	0.4		15	7160	9.8	2.2	1.8	1.4
					30	2,526	1.9	0.8	0.3	0.2		20	5010	4.3	1.3	1.0	0.8
					15	4,957	4.7	2.3	1.1	0.9		25	5050	4.5	1.1	0.9	0.6
					20	5,075	4.4	2.1	1.0	0.9		30	5020	4.8	1.0	0.8	0.6
					25	5,066	4.2	1.9	0.9	0.7							
					30	5,155	4.2	1.9	0.8	0.6							
					15	9,892	10.7	5.1	2.2	1.9							
					20	10,000	10.1	4.3	2.0	1.7							
					25	9,998	10.0	4.0	1.6	1.3							
					30	10,311	11.2	4.6	1.9	1.3							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+12.5	12.5 L	95.0	Lean clay subgrade	270	15	500	1.2	0.6	0.6	0.3	140	15	910	3.6	1.7	1.5	0.7
					15	2,500	6.8	4.2	2.7	1.9		15	4890	19.8	9.8	6.3	3.8
					15	3,500	10.2	6.2	3.8	2.7		15	6790	33.4	16.3	10.7	5.9
					20	3,050	9.0	6.1	4.0	2.9		20	4990	21.8	11.6	8.0	4.8
					25	3,100	8.2	5.7	3.9	3.5		25	4970	21.6	12.6	9.5	6.8
					30	3,100	6.5	4.2	2.5	2.3		30	4620	15.3	8.2	5.9	4.7
1+12.5	12.5 L	Lift 1	Blend II	350	15	500	0.7	0.5	0.5	0.3	153	15	1040	3.4	1.5	1.2	0.8
					15	2,500	5.0	3.1	2.2	1.2		15	4810	17.8	8.2	5.7	3.7
					15	3,500	7.8	4.7	3.2	1.8		15	6850	31.1	13.8	9.2	5.7
					20	2,500	5.4	3.6	2.4	1.4		20	5020	18.0	9.4	6.8	4.4
					25	2,500	4.8	3.4	2.2	1.7		25	4900	15.2	8.0	6.0	4.4
					30	2,500	3.2	3.4	1.4	1.0		30	4810	13.7	6.4	4.1	2.4
1+12.5	12.5 L	Lift 2	Blend II	400	15	500	0.8	0.7	0.5	0.2	306	15	920	2.1	1.3	0.9	0.6
					15	2,500	4.7	2.9	1.9	1.2		15	4900	13.4	7.0	5.1	3.6
					15	3,500	6.8	4.5	2.8	1.7		15	6860	19.8	9.5	7.2	5.0
					20	2,500	4.3	2.9	2.0	1.2		20	5060	12.5	6.5	4.8	3.2
					25	2,500	4.0	2.7	1.7	1.0		25	4990	11.4	5.7	4.2	2.9
					30	2,500	3.0	1.7	1.2	0.9		30	4480	8.4	3.7	2.6	1.9
1+12.5	12.5 L	Lift 3	Blend II	460	15	500	0.7	0.5	0.2	0.2	428	15	1010	1.3	0.5	0.4	0.3
					15	2,500	4.0	2.2	1.2	1.0		15	4920	11.6	5.0	3.6	2.7
					15	3,500	5.7	2.8	1.9	1.4		15	6930	16.3	7.6	5.5	4.0
					20	2,500	3.0	2.0	1.2	0.7		20	5030	10.0	4.4	3.2	2.3
					25	2,500	2.7	1.7	1.0	0.7		25	5170	8.8	3.7	2.8	2.0
					30	2,500	2.2	1.2	0.7	0.5		30	5140	7.7	2.8	2.1	1.4
1+12.5	12.5 L	Lift 4	Blend II	520	15	500	0.6	0.3	0.2	0.1	396	15	960	1.4	0.7	0.4	0.3
					15	2,500	3.4	2.0	1.3	0.9		15	4860	9.3	4.4	2.9	2.4
					15	3,500	5.0	2.8	2.0	1.2		15	6840	14.3	6.4	4.2	3.5
					20	2,500	2.7	1.3	1.0	0.7		20	4880	7.9	3.6	2.3	1.9
					25	2,500	2.4	1.5	1.2	0.7		25	4970	7.1	3.0	1.9	1.7
					30	2,500	2.0	1.0	0.7	0.4		30	5020	6.3	2.5	1.6	1.5

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+12.5	12.5 L	Lift 5	Blend II	580	15	500	0.5	0.3	0.2	0.1	400	15	1090	1.5	0.7	0.4	0.3
					15	2,500	2.9	1.7	1.1	0.7		15	4970	8.0	3.1	2.0	1.6
					15	3,500	4.3	2.5	1.6	1.1		15	7010	13.1	5.4	3.3	2.7
					20	2,500	2.5	1.5	1.0	0.6		20	4760	8.2	3.2	2.2	1.7
					25	2,500	2.2	1.5	0.9	0.6		25	5010	7.1	2.8	1.8	1.6
					30	2,500	2.0	1.0	0.7	0.4		30	5050	7.4	2.5	1.2	0.8
1+12.5	12.5 L	Lift 6	Blend II	640	15	500	0.5	0.2	0.2	0.1	411	15	990	1.5	0.6	0.9	0.2
					15	2,500	2.8	1.2	0.8	0.6		15	5050	7.3	2.6	1.7	1.4
					15	3,500	4.2	1.9	1.2	0.9		15	6860	11.7	4.2	2.6	2.2
					20	2,500	2.4	1.2	0.8	0.5		20	4810	7.5	2.5	1.6	1.3
					25	2,500	2.1	1.0	0.7	0.5		25	5120	7.7	2.6	1.6	1.3
					30	2,500	2.0	0.7	0.5	0.3		30	4950	7.4	2.1	1.1	0.9
1+12.5	12.5 L	Lift 7	Blend II	680	15	--	--	--	--	--	527	15	900	1.1	0.4	0.2	0.2
					15	2,519	2.3	1.4	0.8	0.6		15	4860	8.2	2.7	1.9	1.5
					15	--	--	--	--	--		15	6970	12.2	4.2	2.7	2.1
					20	2,499	2.0	1.1	0.6	0.3		20	5030	7.6	2.6	1.5	1.1
					25	2,515	1.9	1.0	0.4	0.3		25	5120	7.6	2.5	1.3	1.0
					30	2,487	1.9	1.0	0.3	0.2		30	4950	7.6	2.3	1.0	0.8
1+12.5	12.5 L	Lift 8	Blend II	700	15	2,541	2.2	1.1	0.7	0.6	609	15	980	1.1	0.5	0.3	0.2
					20	2,604	2.0	1.0	0.4	0.3		15	4850	7.3	2.9	1.6	1.2
					25	2,605	2.0	1.0	0.3	0.2		15	6920	10.7	4.3	2.3	1.7
					30	2,505	1.8	0.9	0.3	0.2		20	4990	6.5	2.6	1.2	0.9
					15	5,037	4.7	2.6	1.2	1.0		25	4980	6.4	2.5	1.1	0.8
					20	4,975	4.2	2.1	1.0	0.8		30	4990	6.4	2.3	0.9	0.6
					25	4,959	4.1	2.0	0.9	0.6							
					30	5,021	4.0	1.9	0.7	0.4							
					15	9,797	10.3	5.3	2.4	2.0							
					20	10,020	9.8	4.8	2.0	1.6							
					25	10,048	9.6	4.4	1.8	1.2							
					30	9,977	9.3	4.8	1.6	1.0							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+18.75	℄ Lane 2*	101.0	Lean mix concrete	1940	15	2,554	1.0	0.8	0.4	0.3	415	15	1030	0.7	0.2	0.2	0.1
					20	2,497	1.0	0.6	0.4	0.2		15	4920	4.4	1.5	1.2	0.9
					25	2,524	0.9	0.6	0.3	0.2		15	7160	9.8	2.2	1.8	1.4
					30	2,480	0.8	0.4	0.3	0.2		20	5010	4.3	1.3	1.0	0.8
					15	5,004	2.1	1.4	1.0	0.8		25	5050	4.5	1.1	0.9	0.6
					20	5,097	2.0	1.3	0.9	0.7		30	5020	4.8	1.0	0.8	0.6
					25	5,042	1.8	1.2	0.8	0.6							
					30	4,988	1.8	1.1	0.7	0.4							
					15	9,996	4.4	3.1	2.1	1.6							
					20	10,016	4.1	2.9	1.9	1.3							
					25	10,041	3.9	2.7	1.7	1.1							
					30	9,763	3.6	2.3	1.3	1.0							
1+12.5	℄ Lane 3	Lift 9	Blend II	565	15	2,505	2.6	1.6	0.1	0.6	341	15	1140	1.6	0.5	0.3	0.3
					20	2,475	2.1	0.4	0.1	0.6		15	5100	9.9	3.2	1.9	1.7
					25	2,534	2.0	1.6	0.4	0.3		15	6910	15.2	4.6	2.8	2.3
					30	2,523	2.0	1.9	0.1	0.3		20	5020	9.2	2.9	1.7	1.5
					15	5,052	5.6	1.4	1.4	1.2		25	5000	8.7	2.6	1.4	1.2
					20	5,070	5.0	3.0	1.2	1.0		30	4910	8.5	2.5	1.1	0.9
					25	5,000	4.7	0.4	0.1	0.8							
					30	5,020	4.6	0.1	1.1	0.1							
					15	10,086	13.3	8.8	3.3	2.8							
					20	10,016	11.8	10.1	2.8	2.3							
					25	10,045	11.1	9.1	2.2	1.9							
					30	9,950	10.9	6.9	0.1	1.4							

(Continued)

* Center of slab.

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+12.5	℄ Lane 3	101.0	Blend II (DBST)	680	15	2,502	2.1	1.1	0.7	0.4	433	15	980	1.0	0.3	0.2	0.2
					20	2,491	2.0	1.0	0.6	0.3		15	5100	7.1	3.0	1.7	1.2
					25	2,515	1.9	1.0	0.4	0.3		15	7090	11.7	4.4	2.4	1.7
					30	2,507	1.8	1.0	0.3	0.2		20	5040	6.2	2.6	1.4	0.9
					15	4,951	4.6	2.6	1.2	1.0		25	5110	6.3	2.7	1.3	0.9
					20	4,960	4.2	2.2	1.0	0.8		30	5020	5.9	2.4	1.1	0.7
					25	4,964	4.0	2.1	0.9	0.7							
					30	5,012	4.0	2.0	0.9	0.6							
					15	9,969	10.4	5.6	2.6	1.9							
					20	9,973	9.9	5.1	2.2	1.7							
					25	10,194	9.8	5.0	1.9	1.2							
					30	10,517	10.1	5.2	2.0	1.3							
1+37.5	12.5 R	95.0	Lean clay subgrade	225	15	500	1.3	0.7	0.5	0.1	121	15	810	4.1	1.1	0.7	0.3
					15	2,500	7.9	4.0	1.7	1.1		15	4900	27.2	9.3	3.4	2.1
					15	3,500	11.8	5.7	2.5	1.6		15	6920	43.9	13.0	4.8	2.9
					20	3,050	10.7	5.5	2.3	1.5		20	4870	29.5	10.7	4.1	2.3
					25	3,050	11.4	7.2	3.0	2.0		25	5060	31.0	12.1	4.9	5.2
					30	3,100	11.6	7.7	3.1	2.2		30	4210	27.7	11.0	4.5	8.1
1+37.5	12.5 R	Lift 1	Blend II	340	15	500	1.0	0.6	0.4	0.4	170	15	1090	3.7	1.7	0.8	0.4
					15	2,500	6.0	3.7	2.1	1.0		15	4850	22.6	10.1	4.6	2.4
					15	3,500	8.7	5.7	2.8	1.4		15	6920	34.8	14.9	6.5	3.5
					20	2,500	6.3	4.2	2.1	1.0		20	5110	24.3	12.0	5.5	2.8
					25	2,500	6.7	4.7	2.5	1.2		25	4970	27.5	14.6	7.2	4.0
					30	2,500	5.8	4.3	2.2	1.2		30	4360	24.1	13.6	6.5	3.7
1+37.5	12.5 R	Lift 2	Blend II	390	15	500	0.8	0.6	0.2	0.2	260	15	980	2.5	1.4	0.9	0.5
					15	2,500	4.7	3.2	1.7	1.0		15	4900	17.3	8.9	5.1	3.1
					15	3,500	7.2	5.0	2.6	1.5		15	6850	24.8	12.5	7.3	4.4
					20	2,500	4.7	3.2	1.7	1.0		20	5020	17.3	9.4	5.5	3.3
					25	2,500	4.5	3.2	1.8	1.0		25	5010	18.2	10.0	5.7	3.2
					30	2,500	3.9	3.0	1.7	1.0		30	3660	12.1	7.2	4.4	2.7

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+37.5	12.5 R	Lift 3	Blend II	430	15	500	0.8	0.4	0.2	0.2	300	15	1120	2.1	0.8	0.6	0.7
					15	2,500	4.2	2.5	1.3	1.0		15	5140	14.0	6.0	3.7	2.6
					15	3,500	6.3	3.7	2.0	1.5		15	6940	20.1	8.3	5.2	3.6
					20	2,500	3.8	2.2	1.2	0.9		20	5380	13.8	6.4	4.0	2.6
					25	2,500	3.5	2.2	1.2	0.9		25	5330	13.2	6.2	3.7	2.4
					30	2,500	3.1	2.0	1.2	0.9		30	4160	9.6	4.6	3.0	2.0
1+37.5	12.5 R	Lift 4	Blend II	500	15	500	0.7	0.4	0.2	0.2	330	15	960	1.7	0.6	0.4	--
					15	2,500	3.7	2.2	1.4	0.9		15	4860	12.1	4.4	2.8	2.1
					15	3,500	5.2	2.7	2.0	1.3		15	6910	18.3	6.4	4.1	3.1
					20	2,500	3.1	2.0	1.2	0.7		20	4950	11.2	4.4	2.8	2.0
					25	2,500	3.0	2.0	1.2	0.7		25	4910	10.9	4.3	2.9	2.1
					30	2,500	2.5	1.6	1.0	0.7		30	4370	8.6	3.3	2.1	1.5
1+37.5	12.5 R	Lift 5	Blend II	540	15	500	0.5	0.3	0.2	0.2	353	15	960	1.6	0.7	0.5	0.4
					15	2,500	3.3	1.8	1.1	0.8		15	5060	11.4	4.0	2.4	1.8
					15	3,500	4.8	2.6	1.6	1.2		15	6860	16.5	5.7	3.8	2.6
					20	2,500	2.7	1.6	1.0	0.7		20	4950	10.4	3.7	2.2	1.7
					25	2,500	2.5	1.5	0.9	0.7		25	5050	10.0	3.7	2.3	1.6
					30	2,500	2.2	1.2	0.9	0.6		30	5080	9.5	3.5	2.3	1.7
1+37.5	12.5 R	Lift 6	Blend II	580	15	500	0.5	0.3	0.1	0.1	356	15	910	1.4	0.6	0.3	0.2
					15	2,500	3.2	1.7	0.9	0.7		15	5060	8.9	3.3	2.5	1.5
					15	3,500	4.6	2.5	1.2	1.0		15	6910	14.1	5.2	3.5	2.2
					20	2,500	2.5	1.4	0.7	0.6		20	4940	8.4	3.3	2.1	1.4
					25	2,500	2.2	1.2	0.7	0.5		25	5040	8.1	3.1	1.8	1.3
					30	2,500	2.2	1.2	0.6	0.4		30	5200	8.4	3.2	1.7	1.2
1+37.5	12.5 R	Lift 7	Blend II	590	15	--	--	--	--	--	488	15	990	1.3	0.4	0.3	0.2
					15	2,443	2.4	1.3	0.8	0.7		15	4940	9.3	3.0	2.1	1.5
					15	--	--	--	--	--		15	6990	13.5	4.4	2.9	2.0
					20	2,465	2.1	1.1	0.7	0.4		20	5100	8.9	2.8	1.8	1.3
					25	2,539	2.0	1.0	0.7	0.4		25	5050	8.1	2.5	1.6	1.1
					30	2,485	2.0	1.0	0.6	0.3		30	5070	8.1	2.3	1.4	1.0

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+37.5	12.5 R	Lift 8	Blend II	670	15	2,551	2.3	1.3	0.8	0.6	391	15	980	1.2	0.5	0.3	0.2
					20	2,528	2.1	1.1	0.7	0.4		15	4940	8.6	3.1	1.8	1.3
					25	2,629	2.0	1.0	0.6	0.3		15	6660	13.0	4.6	2.5	1.9
					30	2,544	2.0	1.0	0.4	0.2		20	4990	8.3	3.0	1.6	1.2
					15	4,974	4.9	2.7	1.4	1.0		25	4990	8.0	2.7	1.4	1.1
					20	4,984	4.7	2.4	1.2	1.0		30	5000	8.3	2.8	1.3	1.0
					25	5,056	4.4	2.1	1.0	0.8							
					30	5,042	4.3	2.0	1.0	0.7							
					15	9,998	11.1	5.9	3.0	2.1							
					20	10,056	10.6	5.6	2.8	1.9							
					25	10,000	10.1	4.9	2.3	1.6							
					30	9,995	10.3	5.3	2.1	1.3							
1+37.5	12.5 R	Lift 9	Blend II	660	15	2,479	2.1	1.1	0.7	0.4	517	15	990	1.2	0.5	0.3	0.1
					20	2,477	2.0	1.0	0.6	0.4		15	5020	8.1	2.7	1.6	1.1
					25	2,481	1.9	1.0	0.4	0.3		15	6830	11.6	3.7	2.2	1.6
					30	2,545	1.9	0.8	0.3	0.3		20	5170	7.1	2.6	1.5	1.1
					15	5,083	4.9	3.0	1.3	1.0		25	5130	6.8	2.3	1.3	0.9
					20	4,970	4.4	2.8	1.1	0.9		30	5120	6.8	2.3	1.1	0.7
					25	5,066	4.3	3.2	1.0	0.8							
					30	5,386	4.4	4.2	0.9	0.8							
					15	10,029	11.1	8.2	2.8	2.1							
					20	10,150	10.6	6.7	2.3	1.9							
					25	10,466	10.3	0.1	2.3	1.8							
					30	9,970	9.8	1.9	2.0	1.4							
1+37.5	12.5 R	101.0	Blend II	750	15	2,525	2.0	1.0	0.6	0.4	346	15	1060	1.1	0.3	0.2	0.1
					20	2,508	2.0	1.0	0.6	0.3		15	4850	7.2	2.5	1.3	0.9
					25	2,567	1.9	0.9	0.4	0.3		15	6790	12.8	3.7	1.8	1.3
					30	2,512	1.8	0.9	0.3	0.2		20	4980	6.9	2.5	1.2	0.9
					15	5,030	4.6	2.2	1.1	0.9		25	5110	6.8	2.5	1.1	0.9
					20	5,069	4.3	2.0	1.0	0.8		30	4920	6.5	2.2	0.9	0.7
					25	5,090	4.2	2.0	1.0	0.8							
					30	4,934	4.0	1.9	0.8	0.6							
					15	10,037	10.3	4.9	2.3	1.9							
					20	10,223	10.0	4.6	2.1	1.7							
					25	10,117	9.9	4.3	1.8	1.3							
					30	10,462	10.0	4.2	2.0	1.0							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+37.5	12.5 L	95.0	Lean clay	240	15	500	1.4	0.6	0.4	0.2	59	15	1010	5.0	1.9	0.7	0.4
					15	2,500	7.8	3.7	1.7	1.2		15	4850	26.6	9.4	3.6	2.0
					15	3,500	11.6	5.5	2.4	1.7		15	6970	62.4	15.9	5.6	3.0
					20	3,000	10.0	5.8	2.2	1.7		20	4940	29.0	11.4	4.5	2.5
					25	3,050	10.4	6.7	2.5	1.7		25	4960	31.3	12.8	4.5	2.4
					30	3,100	10.7	6.8	2.8	1.9		30	4040	26.2	11.8	4.7	2.5
1+37.5	12.5 L	Lift 1	Blend II	310	15	500	1.0	0.7	0.4	0.2	134	15	1080	4.2	1.7	0.9	0.5
					15	2,500	5.8	3.4	1.8	0.9		15	4940	22.4	8.4	4.0	2.2
					15	3,500	8.4	4.6	2.5	1.3		15	7160	38.9	14.3	6.7	3.6
					20	2,500	6.2	3.4	1.8	1.2		20	4970	24.6	10.2	5.0	2.8
					25	2,500	6.7	3.7	1.8	1.2		25	4980	28.1	12.3	6.2	3.3
					30	2,500	5.6	3.8	2.1	1.3		30	4210	23.4	11.1	5.6	3.3
1+37.5	12.5 L	Lift 2	Blend II	340	15	500	0.8	0.6	0.2	0.1	213	15	930	2.8	1.4	0.8	0.4
					15	2,500	5.1	3.5	1.6	0.8		15	5020	22.0	10.1	5.5	3.0
					15	3,500	7.7	5.3	2.5	1.3		15	6940	31.0	13.6	7.2	4.0
					20	2,500	5.2	3.4	1.9	1.0		20	5080	21.2	10.9	5.7	3.2
					25	2,500	5.0	3.4	1.9	1.0		25	4930	21.8	10.9	5.6	3.3
					30	2,500	4.5	3.4	2.0	1.2		30	3160	12.5	6.9	3.7	2.4
1+37.5	12.5 L	Lift 3	Blend II	390	15	500	0.8	0.5	0.2	0.1	277	15	1000	1.9	0.8	0.6	0.4
					15	2,500	4.7	3.0	1.2	0.8		15	5070	14.6	6.2	4.1	2.5
					15	3,500	6.8	4.3	2.1	1.3		15	6930	21.3	9.3	6.0	3.5
					20	2,500	4.2	2.8	1.5	1.0		20	5000	15.7	6.3	4.1	2.3
					25	2,500	4.0	2.7	1.2	0.8		25	5070	16.3	6.6	4.5	2.7
					30	2,500	3.7	2.7	1.3	0.8		30	4240	13.1	5.0	3.6	2.2
1+37.5	12.5 L	Lift 4	Blend II	430	15	500	0.7	0.4	0.2	0.1	353	15	970	2.2	0.7	0.5	0.4
					15	2,500	3.8	2.4	1.3	0.8		15	4820	11.5	4.5	3.5	2.4
					15	3,500	5.8	3.5	2.0	1.2		15	7010	17.7	6.7	5.3	3.5
					20	2,500	3.2	2.0	1.2	0.7		20	4970	10.9	4.3	3.1	2.2
					25	2,500	3.1	2.6	1.2	0.7		25	5070	11.3	4.1	2.9	2.0
					30	2,500	2.7	1.7	1.0	0.7		30	4460	9.6	3.4	2.5	1.7

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+37.5	12.5 L	Lift 5	Blend II	530	15	500	0.6	0.3	0.2	0.1	354	15	1060	1.5	0.7	0.4	0.3
					15	2,500	3.4	1.8	1.0	0.7		15	4880	10.5	3.8	2.3	1.8
					15	3,500	5.0	2.7	1.6	1.1		15	6970	16.4	5.9	3.5	2.6
					20	2,500	2.7	1.7	1.0	0.7		20	5100	9.7	3.8	2.3	1.7
					25	2,500	2.7	1.7	1.0	0.7		25	5000	9.0	3.8	2.3	1.7
					30	2,500	2.4	1.4	0.8	0.6		30	5000	8.8	3.5	2.1	1.6
1+37.5	12.5 L	Lift 6	Blend II	610	15	500	1.1	0.2	0.1	--	356	15	1010	1.4	0.6	0.3	0.2
					15	2,500	3.3	1.5	0.7	0.6		15	5140	8.3	2.8	2.1	1.4
					15	3,500	4.6	2.1	1.1	0.8		15	6920	13.1	4.3	3.2	2.1
					20	2,500	2.2	1.3	0.7	0.5		20	4890	8.1	2.6	2.1	1.4
					25	2,500	2.2	1.2	0.7	0.5		25	5060	8.3	2.6	1.9	1.2
					30	2,500	2.0	1.0	0.5	0.5		30	5020	8.1	2.5	1.8	1.2
1+37.5	12.5 L	Lift 7	Blend II	620	15	--	--	--	--	--	438	15	11.0	1.5	0.5	0.3	0.2
					15	2,565	2.6	0.2	0.8	0.7		15	4840	9.5	3.0	1.7	1.3
					15	--	--	--	--	--		15	7030	14.5	4.5	2.5	1.9
					20	2,514	2.1	1.1	0.7	0.6		20	4980	9.9	3.0	1.6	1.2
					25	2,526	2.0	1.0	0.6	0.4		25	4990	9.5	2.7	1.4	1.0
					30	2,527	2.0	1.0	0.4	0.3		30	--	--	--	--	--
1+37.5	℄ Lane 2	Lift 8	Blend II	620	15	2,394	2.2	1.2	0.7	0.4	369	15	930	1.4	0.5	0.3	0.2
					20	2,574	2.1	1.1	0.7	0.4		15	4980	9.4	2.8	1.6	1.2
					25	2,609	2.0	1.0	0.4	0.3		15	6860	14.5	4.2	2.3	1.8
					30	2,501	1.9	1.0	0.3	0.2		20	5030	8.7	2.7	1.5	1.1
					15	4,977	5.0	3.0	1.2	1.0		25	5130	8.5	2.5	1.3	1.0
					20	5,096	4.7	2.6	1.2	1.0		30	4940	8.1	2.3	1.1	0.8
					25	5,058	4.4	2.3	1.0	0.7							
					30	4,949	4.1	2.1	0.8	0.4							
					15	10,045	11.3	6.3	2.7	2.0							
					20	10,153	10.7	5.8	2.6	2.0							
					25	9,648	9.8	5.2	2.0	1.4							
					30	10,011	11.8	6.0	2.0	1.1							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 3 (Continued)											
1+31.25*	℄ Lane 2	101.0	Lean mix concrete	2160	15	2,468	1.0	0.7	0.4	0.3	688	15	1020	0.4	0.2	0.2	0.1
					20	2,462	0.9	0.6	0.3	0.2		15	4950	3.3	1.3	1.3	1.0
					25	2,491	0.8	0.6	0.4	0.2		15	7220	6.6	2.7	1.9	1.5
					30	2,518	0.8	0.4	0.2	0.1		20	5070	3.0	1.0	1.1	0.9
					15	4,980	2.0	1.4	1.0	0.8		25	5070	2.3	1.1	1.0	0.7
					20	5,005	1.8	1.2	0.9	0.7		30	4990	2.2	1.1	0.8	0.6
					25	5,019	1.7	1.1	0.8	0.6							
					30	4,963	1.4	1.0	0.7	0.4							
					15	9,935	4.0	3.0	2.0	1.6							
					20	10,024	3.7	2.8	1.9	1.2							
					25	10,136	3.4	2.6	1.7	1.1							
					30	10,139	3.2	2.3	1.4	1.0							
1+37.5	℄ Lane 3	Lift 9	Blend II	570	15	2,548	2.7	1.3	0.8	0.1	425	15	1060	2.7	0.8	0.5	0.4
					20	2,456	2.3	1.2	0.7	0.1		15	5030	14.2	3.9	2.2	1.6
					25	2,553	2.1	1.1	0.7	0.1		15	6900	18.6	5.4	3.0	2.2
					30	2,498	2.0	1.0	0.6	0.1		20	5150	12.7	3.7	2.0	1.5
					15	5,098	5.8	3.0	1.7	0.1		25	5000	11.4	3.1	1.6	1.2
					20	5,053	5.3	2.8	1.6	0.1		30	4690	10.4	2.8	1.4	1.0
					25	5,044	5.0	2.4	1.2	1.6							
					30	5,038	4.8	2.2	1.1	1.3							
					15	9,899	13.3	6.8	3.4	0.1							
					20	10,000	12.2	6.1	3.2	3.1							
					25	9,991	11.7	5.8	2.9	2.1							
					30	10,016	11.3	5.7	2.4	4.3							
1+37.5	℄ Lane 3	101.0	Blend II (DBST)	750	15	2,469	1.9	1.0	0.6	0.4	498	15	960	1.0	0.4	0.2	0.2
					20	2,517	1.8	1.0	0.6	0.4		15	4870	6.7	2.9	1.6	1.1
					25	2,508	1.7	0.9	0.4	0.3		15	6860	10.7	4.2	2.4	1.6
					30	2,521	1.6	0.9	0.4	0.2		20	5190	6.5	2.8	1.5	1.0
					15	4,933	4.0	2.3	1.2	1.0		25	5230	6.3	2.8	1.4	0.9
					20	4,977	3.9	2.1	1.0	0.9		30	5080	6.0	2.5	1.3	0.8

(Continued)

* Center of slab.

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+37.5 (Cont'd)	℄ Lane 3	101.0	Blend II (DBST)	750	25	4,918	3.6	2.0	1.0	0.7							
					30	5,078	3.7	2.0	0.9	0.7							
					15	9,942	9.5	5.2	2.7	1.9							
					20	10,285	9.1	5.0	2.3	1.7							
					25	10,053	8.7	4.7	2.0	1.4							
					30	10,060	8.6	4.7	2.0	1.3							
						Item 4											
1+62.5	12.5 R	95.0	Lean clay subgrade	240	15	500	1.3	0.6	0.3	0.2	125	15	910	3.6	1.1	0.7	0.3
					15	2,500	7.5	3.7	1.6	1.0		15	4930	23.6	6.6	2.7	1.7
					15	3,500	11.2	5.5	2.2	1.3		15	6920	39.5	10.1	4.0	2.5
					20	3,000	9.5	5.2	2.0	1.3		20	4950	23.9	7.5	3.2	1.9
					25	3,000	10.2	5.7	2.6	1.8		25	4960	26.0	8.0	3.7	2.4
					30	3,000	10.0	5.9	2.8	2.1							
1+62.5	12.5 R	Lift 1	Blend II	340	15	500	1.1	0.6	0.6	0.4	163	15	--	--	--	--	--
					15	2,500	5.7	3.2	1.7	1.4		15	4880	19.9	8.4	3.7	1.9
					15	3,500	8.3	4.7	2.5	1.3		15	6950	32.6	13.3	5.7	2.8
					20	2,500	6.0	3.7	1.8	0.9		20	5040	20.6	9.9	4.6	2.3
					25	2,500	6.5	4.2	2.5	1.0		25	4870	22.7	12.1	6.1	3.3
					30	2,500	5.7	4.1	2.4	1.5		30	4270	20.1	11.8	5.9	3.6
1+62.5	12.5 R	Lift 2	Blend II	360	15	500	0.9	0.3	0.0	0.0	232	15	970	2.4	1.2	0.8	0.4
					15	2,500	4.8	3.0	2.2	1.0		15	4920	17.5	8.1	4.5	2.5
					15	3,500	7.3	4.6	3.7	1.3		15	6890	26.0	11.4	6.7	3.6
					20	2,500	4.8	3.7	1.7	0.9		20	5020	18.0	9.0	5.2	2.9
					25	2,500	4.8	4.0	2.2	1.2		25	5010	19.6	10.4	6.5	3.7
					30	2,500	4.2	3.1	2.0	1.3		30	4210	15.6	8.9	6.1	3.8
1+62.5	12.5 R	Lift 3	Blend II	400	15	500	0.9	0.2	0.2	0.1	289	15	1050	2.1	0.9	0.7	0.5
					15	2,500	4.5	1.5	0.7	0.5		15	4910	13.7	5.3	3.8	2.3
					15	3,500	6.5	4.0	2.0	0.9		15	6670	19.8	7.6	5.4	3.2
					20	2,500	4.0	2.7	1.5	1.0		20	4850	13.0	5.8	4.1	2.6
					25	2,500	4.0	2.5	1.5	1.0		25	4970	12.4	6.0	4.3	2.6
					30	2,500	3.7	2.5	1.5	1.0		30	4280	9.7	5.0	3.7	2.3

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5	12.5 R	Lift 4	Blend II	490	15	500	0.7	0.3	0.2	0.1	338	15	1050	1.9	1.1	0.6	0.4
					15	2,500	3.7	2.0	1.3	0.9		15	4990	11.5	3.9	2.7	1.9
					15	3,500	5.2	2.8	1.9	1.2		15	6880	17.1	5.6	3.9	2.6
					20	2,500	3.2	1.7	1.3	0.7		20	4910	10.7	4.3	2.9	2.0
					25	2,500	3.0	1.7	1.3	0.7		25	4920	10.3	4.2	3.1	2.1
					30	2,500	2.6	1.5	1.2	0.7		30	4910	9.5	4.3	2.8	2.0
1+62.5	12.5 R	Lift 5	Blend II	520	15	500	0.7	0.3	0.2	0.1	353	15	1000	1.6	0.6	0.4	0.3
					15	2,500	3.5	1.7	1.0	0.7		15	4880	11.1	4.1	2.7	1.9
					15	3,500	5.1	2.4	1.4	1.1		15	7140	17.5	5.9	3.7	2.6
					20	2,500	2.8	1.5	1.0	0.7		20	5050	10.6	4.0	2.7	2.0
					25	2,500	2.7	1.5	1.0	0.7		25	4980	10.2	3.7	2.6	1.9
					30	2,500	2.5	1.2	1.0	0.7		30	4240	8.3	3.0	2.0	1.5
1+62.5	12.5 R	Lift 6	Blend II	580	15	500	0.5	0.2	0.1	0.1	578	15	920	1.2	0.4	0.2	0.2
					15	2,500	3.0	1.6	0.8	0.7		15	4960	10.0	2.6	1.9	1.6
					15	3,500	4.4	2.5	1.2	1.0		15	7100	13.7	4.2	3.1	2.3
					20	2,500	2.7	1.5	0.7	0.7		20	5060	8.4	2.9	2.2	1.5
					25	2,500	2.2	1.2	0.6	0.7		25	5170	8.2	3.0	2.1	1.6
					30	2,500	2.2	1.2	0.6	0.7		30	4960	7.5	2.7	1.7	1.3
1+62.5	12.5 R	Lift 7	Blend II	620	15	--	--	--	--	--	412	15	970	1.6	0.4	0.3	0.2
					15	2,527	2.6	1.7	0.8	0.6		15	4870	11.7	3.7	1.9	1.5
					15	--	--	--	--	--		15	7010	16.9	5.2	2.8	2.1
					20	2,462	2.2	1.3	0.8	0.4		20	4980	10.1	3.6	1.9	1.4
					25	2,561	2.1	1.2	0.7	0.4		25	4950	9.3	3.2	1.7	1.3
					30	2,557	2.0	1.1	0.6	0.3		30	4210	7.3	2.5	1.1	0.9
1+62.5	12.5 R	Lift 8	Blend II	640	15	2,508	2.2	1.2	0.7	0.6	473	15	950	1.2	0.5	0.3	0.2
					20	2,559	2.1	1.1	0.7	0.6		15	4850	8.4	3.1	1.6	1.2
					25	2,596	2.0	1.0	0.6	0.4		15	6930	12.8	4.6	2.2	1.8
					30	2,500	1.9	1.0	0.4	0.3		20	4850	8.4	3.1	1.6	1.2
					15	4,928	4.8	2.6	1.3	1.0		25	5030	7.6	2.8	1.3	1.0
					20	5,023	4.7	2.4	1.2	1.0		30	5110	8.0	2.7	1.1	0.9

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5 (Cont'd)	12.5 R	Lift 8	Blend II	640	25	5,030	4.4	2.2	1.0	1.0							
					30	4,918	4.1	2.0	1.0	0.8							
					15	10,057	11.2	5.8	2.9	2.3							
					20	10,060	10.7	5.6	2.8	2.1							
					25	10,017	10.0	5.0	2.7	2.0							
					30	10,134	10.4	5.7	2.2	1.9							
1+62.5	12.5 R	Lift 9	Blend I	660	15	2,535	2.1	1.0	0.7	0.4	446	15	1000	1.3	0.5	0.3	0.2
					20	2,448	2.0	1.0	0.6	0.4		15	5180	7.9	2.7	1.5	1.1
					25	2,538	1.9	0.9	0.6	0.4		15	6830	11.6	3.8	2.1	1.5
					30	2,537	1.8	0.8	0.3	0.3		20	5170	7.4	2.4	1.3	1.0
					15	4,958	4.7	2.2	1.2	1.0		25	5160	7.0	2.2	1.2	0.9
					20	5,006	4.4	2.0	1.1	1.0		30	5160	7.0	2.2	1.1	0.7
					25	4,960	4.1	2.0	1.0	0.9							
					30	5,051	4.0	1.8	0.9	0.8							
					15	10,079	11.2	5.0	2.7	2.0							
					20	10,041	10.6	4.7	2.3	2.0							
					25	9,973	10.0	4.4	2.1	1.9							
					30	9,916	9.8	4.1	1.9	1.7							
1+62.5	12.5 R	101.0	Blend I	650	15	2,538	2.4	1.0	0.7	0.4	276	15	940	3.8	0.4	0.3	0.2
					20	2,533	2.1	1.0	0.6	0.4		15	5130	19.1	2.5	1.4	1.1
					25	2,515	2.0	0.9	0.4	0.3		15	7200	26.6	3.4	2.0	1.4
					30	2,490	2.0	0.8	0.3	0.2		20	5120	14.2	2.3	1.3	1.0
					15	5,429	5.6	2.3	1.3	1.0		25	4960	13.4	2.1	1.2	0.8
					20	4,765	4.4	1.9	1.1	0.9		30	3590	7.5	1.3	0.7	0.5
					25	5,157	4.6	1.8	1.0	0.7							
					30	5,354	4.7	1.8	0.9	0.7							
					15	8,102	9.0	3.7	2.0	1.4							
					20	9,767	10.2	4.1	2.2	1.7							
					25	10,561	11.1	4.2	1.9	1.3							
					30	10,144	14.2	4.0	1.4	1.0							

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5	12.5 L	95.0	Lean clay subgrade	300	15	500	1.2	0.5	0.3	0.2	156	15	1030	4.2	1.4	0.7	0.3
					15	2,500	6.4	3.0	1.4	1.0		15	4830	22.1	7.9	3.2	1.8
					15	3,500	9.3	4.2	2.0	1.3		15	7070	36.5	11.2	4.4	2.5
					20	3,000	8.0	3.9	1.7	1.2		20	4930	21.3	7.9	3.3	1.9
					25	3,000	8.3	4.2	1.8	1.2		25	4980	22.3	8.2	3.3	1.8
					30	3,200	8.7	5.0	2.2	1.5		30	4710	22.2	8.5	3.6	2.2
1+62.5	12.5 L	Lift 1	Blend II	380	15	500	0.8	0.9	0.3	0.2	211	15	920	2.6	1.1	0.5	0.3
					15	2,500	5.4	2.7	1.4	0.8		15	4820	17.0	5.9	2.9	1.7
					15	3,500	7.8	4.0	1.9	1.2		15	6720	25.9	9.0	4.2	2.5
					20	2,500	5.4	2.8	1.3	0.8		20	4990	16.5	6.5	3.1	1.9
					25	2,500	5.6	3.2	1.7	0.9		25	5040	17.8	7.3	3.7	2.1
					30	2,500	5.2	3.0	1.7	1.2		30	4670	16.4	6.9	3.6	2.2
1+62.5	12.5 L	Lift 2	Blend II	390	15	500	0.7	0.7	0.4	0.1	288	15	990	2.3	1.6	0.9	0.3
					15	2,500	4.7	3.1	1.6	0.6		15	4840	16.5	6.9	2.7	2.1
					15	3,500	6.7	4.2	2.2	0.9		15	6910	23.7	9.8	3.8	3.0
					20	2,500	4.7	3.2	1.7	0.7		20	5000	15.9	7.2	3.2	2.5
					25	2,500	4.5	3.2	1.7	0.7		25	4920	16.1	7.4	3.3	2.5
					30	2,500	4.2	3.2	2.0	0.9		30	3760	11.7	5.9	2.9	2.4
1+62.5	12.5 L	Lift 3	Blend II	420	15	500	0.7	0.5	0.2	0.1	320	15	950	1.7	0.8	0.5	0.4
					15	2,500	4.3	2.2	1.2	0.9		15	4990	11.1	5.2	3.0	2.0
					15	3,500	6.2	3.2	1.7	1.2		15	6910	17.1	7.8	4.5	2.9
					20	2,500	3.8	2.0	1.2	0.8		20	5110	11.1	5.4	3.1	2.1
					25	2,500	3.7	2.0	1.2	0.8		25	5070	11.3	5.8	3.5	2.4
					30	2,500	3.5	2.0	1.2	0.8		30	5010	11.0	5.5	3.4	2.4
1+62.5	12.5 L	Lift 4	Blend II	480	15	500	0.6	0.3	0.2	0.2	363	15	850	1.4	0.9	0.3	0.3
					15	2,500	3.7	1.9	1.2	0.7		15	5040	11.0	4.1	2.6	2.0
					15	3,500	5.5	2.7	1.5	1.1		15	7070	16.6	6.3	3.8	2.8
					20	2,500	3.2	1.7	1.2	0.7		20	4890	9.9	4.9	2.6	1.9
					25	2,500	3.0	1.7	1.2	0.7		25	4880	9.5	5.7	2.5	1.8
					30	2,500	2.8	1.5	1.2	0.7		30	5000	9.6	7.0	2.8	2.1

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5	12.5 L	Lift 5	Blend II	570	15	500	0.5	0.4	0.2	0.1	348	15	1030	1.6	0.7	0.4	0.3
					15	2,500	3.0	1.9	1.0	0.7		15	5120	9.4	3.6	2.3	1.7
					15	3,500	4.5	2.7	1.4	1.0		15	7070	15.0	5.4	3.5	2.4
					20	2,500	2.7	1.7	1.0	0.7		20	5010	8.5	3.7	2.5	1.7
					25	2,500	2.5	1.7	1.0	0.7		25	5030	8.6	3.8	2.5	1.8
					30	2,500	2.2	1.4	0.7	0.5		30	5050	8.4	3.4	2.1	1.5
1+62.5	12.5 L	Lift 6	Blend II	640	15	500	1.6	0.2	0.1	--	505	15	930	1.4	0.4	0.2	0.2
					15	2,500	3.5	1.5	0.7	0.5		15	4640	9.4	2.7	1.8	1.2
					15	3,500	4.5	2.0	1.1	0.7		15	6860	13.8	4.4	2.6	1.7
					20	2,500	2.4	1.3	0.7	0.4		20	5050	8.6	3.1	1.9	1.3
					25	2,500	2.2	1.2	0.6	0.4		25	5030	8.5	3.2	1.7	1.1
					30	2,500	2.0	1.0	0.5	0.4		30	4980	8.5	3.1	1.8	1.1
1+62.5	12.5 L	Lift 7	Blend II	630	15	--	--	--	--	--	495	15	1020	1.2	0.5	0.4	0.2
					15	2,516	2.4	1.3	0.8	0.6		15	4880	8.5	3.0	1.8	1.4
					15	--	--	--	--	--		15	6910	12.6	4.4	2.6	1.9
					20	2,514	2.1	1.1	0.7	0.4		20	5110	7.9	2.9	1.7	1.3
					25	2,478	2.0	1.0	0.6	0.4		25	5030	7.6	2.8	1.5	1.1
					30	2,535	2.0	1.0	0.6	0.3		30	4840	7.9	2.6	1.4	1.1
1+62.5	12.5 L	Lift 8	Blend II	620	15	2,542	2.3	1.2	0.7	0.4	564	15	990	1.2	0.4	0.3	0.2
					20	2,506	2.1	1.0	0.6	0.4		15	4760	8.2	3.0	1.7	1.2
					25	2,474	2.0	1.0	0.4	0.3		15	6960	12.1	4.5	2.4	1.8
					30	2,513	2.0	1.0	0.3	0.3		20	5030	7.9	3.0	1.6	1.2
					15	5,135	5.1	2.8	1.3	1.0		25	5080	7.6	2.8	1.4	1.0
					20	4,944	4.7	2.3	1.2	1.0		30	4970	7.6	2.7	1.3	0.9
					25	4,992	4.4	2.0	1.0	0.7							
					30	5,034	4.4	2.1	0.8	0.7							
					15	10,147	11.8	5.4	2.7	2.0							
					20	10,023	10.9	5.1	2.6	2.0							
					25	10,064	10.4	5.0	2.1	1.8							
					30	10,440	12.6	5.7	1.9	1.2							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5	℄ Lane 2	Lift 9	Cement stabilized Blend I	620	15	2,516	2.0	1.0	0.6	0.4	584	15	1010	1.2	0.5	0.3	0.2
					20	2,441	1.9	0.8	0.4	0.3		15	5100	7.1	3.2	1.4	1.0
					25	2,468	1.8	0.8	0.3	0.2		15	6970	10.3	4.6	2.0	1.4
					30	2,446	1.7	0.7	0.3	0.2		20	4960	6.3	2.8	1.3	0.9
					15	5,048	4.6	2.0	1.1	0.9		25	4890	5.9	2.6	1.1	0.8
					20	4,968	4.2	1.8	1.0	0.8		30	4830	5.8	2.4	1.0	0.7
					25	5,030	4.0	1.7	0.9	0.7							
					30	4,993	4.0	1.6	0.6	0.6							
					15	10,054	10.6	4.2	2.2	1.8							
					20	10,074	10.0	4.0	3.4	1.6							
					25	9,824	9.3	3.7	0.1	1.3							
					30	9,972	9.6	3.7	0.1	1.4							
1+62.5	℄ Lane 2	101.0	Cement stabilized Blend I	1060	15	2,496	1.6	1.0	0.6	0.3	781	15	980	0.6	0.3	0.2	0.2
					20	2,451	1.4	0.9	0.4	0.3		15	4870	3.9	2.1	1.3	0.9
					25	2,507	1.3	0.8	0.4	0.2		15	6900	6.5	3.0	1.9	1.3
					30	2,490	1.3	0.8	0.3	0.2		20	4990	3.9	1.9	1.2	0.8
					15	5,003	3.2	2.0	1.0	0.8		25	5070	3.8	1.8	1.1	0.7
					20	4,983	3.0	1.9	1.0	0.7		30	4970	3.5	1.6	1.0	0.6
					25	5,024	3.0	1.8	0.9	0.7							
					30	5,000	2.9	1.7	0.8	0.6							
					15	9,959	7.0	4.2	2.2	1.6							
					20	10,156	7.0	4.1	2.1	1.4							
					25	10,033	6.7	4.0	2.0	1.3							
					30	9,934	6.4	3.8	1.8	1.2							
1+62.5	℄ Lane 3	Lift 9	Blend I	600	15	2,466	2.3	1.2	0.1	0.4	447	15	1170	1.7	0.6	0.3	0.2
					20	2,452	2.1	1.1	0.1	0.4		15	4960	9.4	3.3	1.8	1.3
					25	2,500	2.1	1.0	0.1	0.3		15	6970	13.9	4.8	2.6	1.8
					30	2,467	2.0	1.0	0.1	0.3		20	5180	9.5	3.2	1.7	1.2
					15	5,000	5.3	2.8	0.3	1.0		25	4920	8.7	3.0	1.6	1.2
					20	4,955	5.1	2.7	0.3	1.0		30	4910	9.1	2.8	1.4	1.1
					25	4,978	4.9	2.4	0.3	0.9							
					30	5,061	4.8	2.2	1.0	0.8							
					15	9,846	12.3	6.1	3.0	2.1							
					20	10,043	12.0	6.0	2.9	2.0							
					25	9,958	11.2	5.7	2.4	1.8							
					30	10,000	11.0	5.7	4.3	1.8							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+62.5	℄ Lane 3	101.0	Blend I (SST)	690	15	2,453	2.0	1.1	0.6	0.4	453	15	1120	1.0	0.4	0.2	0.2
					20	2,498	1.9	1.0	0.6	0.3		15	5060	7.2	3.1	1.7	1.1
					25	2,515	1.8	1.0	0.4	0.3		15	7100	11.7	4.6	2.3	1.6
					30	2,515	1.8	0.9	0.4	0.3		20	5210	6.8	2.9	1.5	1.0
					15	5,097	4.4	2.4	1.2	0.9		25	5180	6.7	3.1	1.5	1.0
					20	4,921	4.0	2.2	1.0	0.8		30	5030	6.4	2.7	1.3	0.9
					25	5,016	4.0	2.0	1.0	0.7							
					30	5,021	4.0	2.0	1.0	0.7							
					15	9,930	10.0	5.3	2.6	1.9							
					20	10,177	9.9	5.1	2.3	1.7							
					25	10,031	9.4	4.9	2.1	1.4							
					30	9,728	9.2	5.0	2.3	1.3							
1+87.5	12.5 R	95.0	Lean clay subgrade	200	15	500	1.3	0.7	0.3	0.2	98	15	960	4.2	1.9	0.8	0.4
					15	2,500	8.3	4.7	1.8	1.0		15	4790	25.5	10.3	3.7	1.8
					15	3,500	12.8	6.9	2.7	1.5		15	6870	46.8	16.8	5.4	2.6
					20	2,900	11.1	6.8	2.7	15.5		20	4910	28.7	12.7	5.0	2.4
					25	3,000	12.5	8.3	3.5	2.2		25	4960	32.2	15.1	6.6	3.5
					30	3,050	12.0	9.1	3.7	2.6		30	3650	24.1	11.8	5.7	3.3
1+87.5	12.5 R	Lift 1	Blend II	320	15	500	1.0	0.6	0.5	0.2	118	15	1010	3.5	1.6	0.8	0.4
					15	2,500	5.7	3.6	2.1	0.6		15	4930	22.1	9.7	4.6	2.3
					15	3,500	8.4	5.1	2.9	1.1		15	7020	39.8	15.[illegible]	6.6	3.3
					20	2,500	6.2	4.0	2.2	0.9		20	4950	24.2	11.6	5.9	2.9
					25	2,500	6.2	4.5	3.2	1.1		25	4950	28.3	15.0	8.0	4.4
					30	2,500	5.2	4.5	2.8	1.3		30	4000	21.2	11.5	6.3	3.9
1+87.5	12.5 R	Lift 2	Blend II	340	15	500	0.9	0.6	0.2	0.2	217	15	960	2.5	1.4	0.9	0.5
					15	2,500	5.2	3.2	1.6	0.8		15	4870	18.7	8.0	4.4	2.4
					15	3,500	7.7	5.0	2.5	1.2		15	7040	2[illegible].8	11.9	6.8	3.5
					20	2,500	5.2	3.5	1.8	1.0		20	5020	19.1	9.2	5.4	2.9
					25	2,500	5.1	3.5	2.0	1.2		25	5090	22.4	11.2	6.9	4.0
					30	2,500	4.4	3.5	1.8	1.3		30	3770	14.9	7.7	5.2	3.5

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	12.5 R	Lift 3	Blend II	400	15	500	1.0	0.5	0.2	0.2	250	15	1260	2.1	1.5	0.9	0.9
					15	2,500	5.3	2.7	1.3	1.0		15	4950	13.4	5.3	4.0	2.9
					15	3,500	7.7	4.2	1.9	1.5		15	6750	20.6	6.7	5.3	3.6
					20	2,500	4.6	2.7	1.9	1.0		20	5150	13.5	4.8	3.8	2.5
					25	2,500	4.3	2.7	1.9	1.1		25	5050	13.3	5.5	4.3	2.9
					30	2,500	3.9	2.2	1.9	1.2		30	3190	7.1	3.2	2.7	2.0
1+87.5	12.5 R	Lift 4	Blend II	480	15	500	0.7	0.3	0.2	0.2	416	15	950	1.5	1.1	0.5	0.4
					15	2,500	3.7	2.1	1.4	0.8		15	4860	10.0	6.6	2.9	2.1
					15	3,500	5.3	2.9	2.0	1.2		15	6980	15.1	10.0	4.3	3.1
					20	2,500	3.2	1.7	1.5	0.8		20	4940	9.6	9.8	3.2	2.6
					25	2,500	3.1	2.1	1.5	0.8		25	4980	9.2	8.4	3.3	2.7
					30	2,500	2.6	1.7	1.2	0.8		30	5100	8.6	9.9	3.2	2.4
1+87.5	12.5 R	Lift 5	Blend II	520	15	500	0.6	0.4	0.2	0.1	407	15	940	1.8	0.6	0.4	0.3
					15	2,500	3.3	2.1	1.1	0.8		15	4950	10.6	3.9	2.5	1.7
					15	3,500	4.9	2.9	1.6	1.2		15	7230	16.2	6.0	3.8	2.5
					20	2,500	2.9	2.0	1.2	0.7		20	4970	9.8	4.0	2.5	1.7
					25	2,500	2.7	1.7	1.1	0.7		25	5030	9.3	4.0	2.6	1.8
					30	2,500	2.3	1.5	1.1	0.7		30	4940	9.1	3.8	2.6	1.9
1+87.5	12.5 R	Lift 6	Blend II	590	15	500	0.5	0.3	0.1	--	360	15	970	1.5	0.6	0.3	13.4
					15	2,500	2.9	0.7	0.7	0.6		15	5210	9.2	2.9	1.9	31.2
					15	3,500	4.3	2.4	1.2	0.9		15	6940	14.0	4.3	3.0	34.0
					20	2,500	2.5	1.5	0.8	0.6		20	5000	9.1	3.4	2.1	28.0
					25	2,500	2.2	1.3	0.7	0.6		25	5170	9.1	3.9	2.2	9.6
					30	2,500	2.1	1.2	0.6	0.4		30	4980	8.2	3.0	1.8	11.8
1+87.5	12.5 R	Lift 7	Blend II	640	15	--	--	--	--	--	427	15	950	1.2	0.3	0.3	0.2
					15	2,521	2.4	1.6	0.9	0.7		15	4940	10.2	3.1	2.0	1.3
					15	--	--	--	--	--		15	6820	14.6	4.6	2.9	2.0
					20	2,565	2.2	1.3	0.8	0.7		20	5020	9.5	3.1	2.0	1.3
					25	2,486	2.0	1.1	0.7	0.6		25	5030	9.1	2.7	1.7	1.2
					30	2,508	1.9	1.0	0.6	0.3		30	4320	7.4	2.1	1.2	0.8

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	12.5 R	Lift 8	Blend II	660	15	2,447	2.3	1.3	0.8	0.6	498	15	910	1.1	0.5	0.3	0.2
					20	2,526	2.1	1.2	0.7	0.6		15	4800	8.2	3.2	1.8	1.3
					25	2,573	2.0	1.1	0.6	0.4		15	6840	12.3	4.5	2.5	1.9
					30	2,583	2.0	1.0	0.4	0.3		20	5050	8.1	3.2	1.7	1.3
					15	5,021	5.0	2.8	1.4	1.1		25	5030	7.7	2.9	1.5	1.1
					20	5,238	5.0	2.8	1.4	1.1		30	5030	7.9	2.6	1.3	1.0
					25	4,986	4.4	2.3	1.1	1.0							
					30	5,052	4.1	2.4	1.0	0.9							
					15	10,121	11.6	6.2	3.0	2.3							
					20	10,116	10.9	6.1	3.0	2.2							
					25	10,099	10.2	6.0	2.4	2.0							
					30	10,048	10.8	4.7	2.6	2.0							
1+87.5	12.5 R	Lift 9	Blend I	630	15	2,530	2.1	1.0	0.6	0.4	468	15	1010	1.3	0.4	0.3	0.2
					20	2,510	2.0	1.0	0.6	0.4		15	4900	8.4	2.3	1.4	1.1
					25	2,540	1.9	1.0	0.4	0.4		15	6820	12.5	3.5	2.0	1.5
					30	2,476	1.8	0.9	0.3	0.3		20	5100	7.4	2.3	1.4	1.1
					15	4,937	4.8	2.2	1.1	1.0		25	5090	6.9	2.0	1.2	0.9
					20	4,993	4.6	2.2	1.1	1.0		30	5070	6.9	1.8	1.0	0.7
					25	5,034	4.2	2.0	1.0	0.9							
					30	5,064	4.0	2.0	0.9	0.7							
					15	9,787	10.9	5.0	2.4	2.0							
					20	9,951	10.3	5.0	2.4	2.0							
					25	9,980	9.9	4.9	2.2	2.0							
					30	9,906	9.4	4.9	1.9	1.4							
1+87.5	12.5 R	101.0	Blend I	690	15	2,509	2.0	1.0	0.6	0.4	480	15	970	1.2	0.4	0.2	0.2
					20	2,492	1.9	1.0	0.6	0.3		15	4920	7.3	2.3	1.3	0.9
					25	2,544	1.8	0.9	0.4	0.3		15	7270	12.2	3.6	1.9	1.3
					30	2,505	1.7	0.8	0.3	0.2		20	5080	7.3	2.3	1.3	0.9
					15	5,000	4.3	2.1	1.1	0.9		25	5090	6.8	2.2	1.2	0.9
					20	5,088	4.2	2.0	1.0	0.8		30	5040	6.6	2.0	1.0	0.7
					25	5,077	4.0	1.9	1.0	0.7							
					30	5,004	3.9	1.7	0.8	0.6							
					15	10,079	10.2	4.7	2.2	1.8							
					20	9,901	9.8	4.3	2.1	1.6							
					25	9,609	9.6	4.4	2.0	1.6							
					30	10,007	10.1	4.9	1.9	1.3							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	12.5 L	95.0	Lean clay subgrade	250	15	500	1.2	0.7	0.3	0.2	37	15	1100	4.9	1.7	0.8	0.4
					15	2,500	7.2	3.9	1.5	1.0		15	4890	28.7	8.3	3.4	1.9
					15	3,500	10.8	5.7	2.2	1.5		15	6910	82.7	13.8	5.2	2.9
					20	3,000	9.3	5.7	2.0	1.3		20	4930	29.4	10.3	4.2	2.2
					25	3,000	9.6	5.8	2.3	1.7		25	4930	31.3	11.3	4.6	2.5
					30	3,100	10.0	6.9	2.4	1.8		30	3910	24.6	9.1	4.1	2.5
1+87.5	12.5 L	Lift 1	Blend II	300	15	500	1.1	0.6	0.9	0.4	164	15	1050	3.9	1.8	0.9	0.5
					15	2,500	6.3	3.6	1.7	1.0		15	4710	22.6	8.3	3.8	2.1
					15	3,500	9.2	5.3	2.4	1.2		15	6880	35.8	13.1	5.6	3.0
					20	2,500	6.5	3.7	1.8	0.9		20	5120	24.9	10.3	4.7	2.5
					25	2,500	6.1	4.2	2.1	1.2		25	5090	27.9	12.2	5.8	3.3
					30	2,500	5.8	4.1	1.9	1.2		30	4250	22.6	10.2	5.1	3.3
1+87.5	12.5 L	Lift 2	Blend II	370	15	500	0.9	0.7	0.2	0.1	209	15	990	3.2	1.6	0.9	0.5
					15	2,500	4.7	3.2	1.4	0.8		15	4890	21.0	7.8	4.2	2.4
					15	3,500	7.2	5.0	2.1	1.2		15	6980	31.0	11.5	6.1	3.3
					20	2,500	5.2	3.7	1.7	0.9		20	5020	21.1	8.5	4.7	2.7
					25	2,500	6.0	4.0	2.0	1.1		25	4970	21.9	9.2	5.5	3.4
					30	2,500	5.0	3.7	1.9	1.2		30	3640	14.8	6.2	4.0	2.8
1+87.5	12.5 L	Lift 3	Blend II	400	15	500	0.8	0.5	0.2	0.2	302	15	990	2.3	0.9	0.5	0.4
					15	2,500	4.6	2.0	1.2	0.5		15	4930	14.4	5.9	3.4	2.2
					15	3,500	6.6	5.2	1.8	1.2		15	6990	21.2	8.5	4.8	3.1
					20	2,500	4.0	3.2	1.2	0.9		20	4970	14.1	6.3	3.7	2.4
					25	2,500	4.0	3.3	1.2	1.0		25	5020	13.7	6.5	4.3	3.1
					30	2,500	3.5	2.7	1.2	1.0		30	3950	9.8	4.5	2.8	2.0
1+87.5	12.5 L	Lift 4	Blend II	480	15	500	0.7	0.4	0.2	0.1	355	15	870	1.5	0.8	0.4	0.3
					15	2,500	3.7	2.2	1.2	0.7		15	4910	10.2	7.2	2.8	2.1
					15	3,500	5.5	3.0	1.8	1.1		15	6900	15.8	10.5	4.1	3.1
					20	2,500	3.2	1.9	1.2	0.7		20	5000	10.1	7.0	2.7	2.0
					25	2,500	3.0	1.9	1.2	0.7		25	4890	9.2	9.0	2.7	2.1
					30	2,500	2.7	1.5	1.2	0.7		30	4960	8.5	11.8	2.7	2.2

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	12.5 L	Lift 5	Blend II	630	15	500	0.6	0.3	0.2	0.1	257	15	1030	1.5	0.6	0.4	0.4
					15	2,500	3.3	1.7	1.1	0.8		15	5020	10.0	3.7	2.5	1.8
					15	3,500	4.8	2.6	1.5	1.2		15	6900	17.3	5.4	3.5	2.5
					20	2,500	3.0	1.7	1.1	0.7		20	5060	10.3	4.0	2.6	1.9
					25	2,500	2.7	1.6	1.1	0.7		25	4920	9.4	3.7	2.5	1.8
					30	2,500	2.3	1.2	0.7	0.7		30	4420	7.4	2.6	1.7	1.3
1+87.5	12.5 L	Lift 6	Blend II	580	15	500	0.5	0.3	0.1	0.1	346	15	1020	1.9	0.6	0.4	0.3
					15	2,500	3.1	1.7	0.7	0.5		15	5070	10.1	3.4	2.2	1.4
					15	3,500	4.6	2.4	1.2	0.8		15	6940	15.5	4.9	3.2	2.0
					20	2,500	2.7	1.5	0.7	0.5		20	5050	8.7	3.4	2.2	1.5
					25	2,500	2.5	1.4	0.7	0.5		25	5010	8.3	3.4	2.1	1.4
					30	2,500	2.2	1.2	0.6	0.5		30	5000	8.3	3.1	1.8	1.3
1+87.5	12.5 L	Lift 7	Blend II	610	15	--	--	--	--	--	523	15	1120	1.3	0.4	0.3	0.2
					15	2,518	2.4	1.4	0.8	0.7		15	4840	9.5	3.1	1.9	1.4
					15	--	--	--	--	--		15	6820	14.6	4.6	2.9	2.0
					20	2,493	2.1	1.2	0.7	0.6		20	5020	9.5	3.1	2.0	1.3
					25	2,565	2.0	1.2	0.6	0.4		25	5030	9.1	2.7	1.7	1.2
					30	2,498	1.9	1.1	0.6	0.4		30	4320	7.4	2.1	1.2	0.8
1+87.5	12.5 L	Lift 8	Blend II	590	15	2,452	2.4	1.2	0.7	0.6	518	15	880	1.4	0.4	0.3	0.2
					20	2,556	2.2	1.1	0.7	0.4		15	4860	8.4	2.7	1.6	1.3
					25	2,481	2.0	1.0	0.6	0.3		15	6880	12.3	4.3	2.4	1.8
					30	2,519	2.0	1.0	0.4	0.2		20	5090	8.0	2.8	1.6	1.2
					15	5,103	5.3	2.9	1.3	1.0		25	5060	7.8	2.7	1.4	1.0
					20	5,005	5.0	2.7	1.3	1.0		30	5010	7.9	2.5	1.3	1.0
					25	4,966	4.7	2.3	1.0	0.9							
					30	5,068	4.6	2.2	1.0	0.7							
					15	10,317	12.7	6.3	2.9	2.1							
					20	9,978	11.3	5.8	2.8	2.1							
					25	9,965	10.9	5.6	2.0	1.7							
					30	10,229	22.6	6.3	2.3	1.6							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	℄ Lane 2	Lift 9	Blend I	720	15	2,446	1.8	1.0	--	0.3	524	15	1040	1.3	0.4	0.3	0.2
			(Cement		20	2,481	1.8	1.0	--	0.3		15	5140	7.9	2.5	1.4	1.0
			stabilized)		25	2,471	1.6	0.8	--	0.3		15	6870	11.2	3.4	2.0	1.3
					30	2,500	1.6	0.8	--	0.2		20	5000	7.3	2.4	1.3	0.9
					15	4,982	4.0	2.1	--	0.8		25	4910	6.4	2.0	1.1	0.8
					20	4,998	3.9	2.0	1.0	0.8		30	4900	6.2	1.8	1.0	0.6
					25	4,947	3.6	1.9	1.0	0.7							
					30	5,135	3.6	1.8	0.8	0.6							
					15	9,952	9.3	4.9	2.3	1.8							
					20	9,990	9.0	4.8	2.3	1.7							
					25	10,071	8.3	4.2	2.0	1.3							
					30	9,917	8.0	4.0	1.8	1.1							
1+87.5	℄ Lane 2	101.0	Blend I	1280	15	2,493	1.2	0.9	0.6	0.3	612	15	1090	0.6	0.3	0.2	0.1
			(Cement		20	2,447	1.0	0.8	0.4	0.3		15	5030	4.2	2.0	1.3	0.9
			stabilized)		25	2,477	1.0	0.7	0.3	0.2		15	7111	7.6	3.0	2.0	1.3
					30	2,590	1.0	0.7	0.3	0.2		20	5150	3.9	1.9	1.2	0.8
					15	4,962	2.6	1.9	1.0	0.8		25	5080	3.8	1.7	1.1	0.8
					20	4,978	2.3	1.7	1.0	0.7		30	5030	3.6	1.5	1.0	0.6
					25	4,977	2.2	1.6	0.9	0.6							
					30	5,005	2.1	1.4	0.8	0.4							
					15	9,966	5.8	4.0	2.2	1.6							
					20	10,061	5.4	3.9	2.0	1.4							
					25	10,028	5.1	3.6	1.9	1.2							
					30	10,177	5.0	3.3	1.7	1.0							
1+87.5	℄ Lane 3	Lift 9	Blend I	610	15	2,514	2.4	1.2	0.8	0.6	326	15	1030	1.6	0.5	0.3	0.2
					20	2,492	2.2	1.1	0.7	0.4		15	5160	10.6	3.3	1.8	1.2
					25	2,511	2.1	1.0	0.6	0.4		15	6920	16.0	5.2	2.6	1.8
					30	2,532	2.0	1.0	0.6	0.3		20	5180	10.6	3.8	1.9	1.4
					15	5,080	5.4	2.7	1.4	1.1		25	5070	9.8	3.4	1.7	1.2
					20	4,964	5.0	2.3	1.3	1.0		30	4830	9.0	3.1	1.5	1.0
					25	4,987	4.8	2.1	1.2	1.0							
					30	5,044	4.7	2.0	1.0	0.9							
					15	9,959	12.4	5.7	3.0	2.2							
					20	9,953	11.6	5.2	3.0	2.1							
					25	9,998	11.0	5.0	2.6	2.0							
					30	10,003	10.8	4.8	7.0	1.9							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 4 (Continued)											
1+87.5	℄ Lane 3	101.0	Blend I (SST)	700	15	2,440	2.0	1.0	0.7	0.4	468	15	1030	1.2	0.4	0.3	0.2
					20	2,470	1.9	1.0	0.6	0.4		15	4870	7.2	2.8	1.6	1.1
					25	2,474	1.8	1.0	0.4	0.3		15	6930	11.6	4.0	2.3	1.6
					30	2,477	1.8	0.9	0.4	0.3		20	5160	7.4	2.9	1.7	1.2
					15	5,019	4.4	2.4	1.2	1.0		25	5090	6.9	2.6	1.5	1.1
					20	5,007	4.2	2.2	1.2	0.9		30	5070	6.6	2.3	1.3	0.9
					25	5,099	4.1	2.1	1.0	0.8							
					30	4,952	4.0	2.0	1.0	0.7							
					15	9,958	10.2	5.3	2.7	1.9							
					20	10,032	9.8	5.1	2.6	1.9							
					25	10,261	10.0	5.0	2.3	1.6							
					30	10,016	10.1	5.2	2.3	1.7							
						Item 5											
2+12.5	12.5 R	95.0	Lean clay subgrade	250	15	500	1.0	0.5	0.2	0.2	110	15	990	3.4	1.2	0.6	0.3
					15	2,500	6.3	3.2	1.6	1.1		15	4910	21.0	6.7	3.3	2.0
					15	3,500	9.7	4.8	2.3	1.6		15	6890	37.9	10.7	5.0	2.8
					20	3,000	8.0	4.4	2.4	1.8		20	4890	19.8	7.0	3.7	2.2
					25	3,000	7.7	4.4	2.0	1.5		25	4970	21.8	8.0	4.5	3.0
					30	3,000	7.0	4.8	2.0	1.7		30	4340	17.8	6.5	3.7	2.7
2+12.5	12.5 R	Lift 1	ML								107	15	980	.37	1.5	0.8	0.5
												15	4960	26.1	9.5	5.0	2.8
												15	6780	43.0	14.8	7.5	4.3
												20	5100	28.5	10.6	5.6	3.3
												25	4890	29.1	10.8	6.3	4.1
												30	3400	17.0	5.8	3.2	2.4
2+12.5	12.5 R	Lift 2	ML	310	15	500	1.0	0.7	0.2	0.2	190	15	1130	2.7	1.1	0.7	0.4
					15	2,500	5.5	3.2	1.3	0.8		15	5060	17.6	6.4	3.6	2.3
					15	3,500	8.2	4.7	2.0	1.2		15	6920	27.4	9.5	5.3	3.3
					20	2,500	5.3	3.2	1.5	1.0		20	4980	17.3	6.6	3.8	2.5
					25	2,500	5.2	3.2	1.5	1.0		25	5070	17.6	6.1	3.6	2.3
					30	2,500	4.7	2.7	1.2	1.0		30	4300	14.6	4.7	2.9	2.1

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+12.5	12.5 R	Lift 3	ML	360	15	500	1.2	0.7	0.2	0.1	182	15	1260	3.4	1.2	0.7	0.6
					15	2,500	5.5	3.2	1.4	0.9		15	5220	20.5	5.9	3.6	2.7
					15	3,500	8.0	4.7	2.1	1.3		15	6970	30.1	8.4	5.2	3.8
					20	2,500	4.7	2.7	1.2	0.7		20	5360	21.5	6.1	3.9	2.9
					25	2,500	4.5	2.5	1.1	0.7		25	5050	19.5	5.4	3.3	2.3
					30	2,500	4.2	2.5	1.0	0.7		30	3580	12.5	3.5	2.1	1.5
2+12.5	12.5 R	Lift 4	ML	390	15	500	0.8	0.3	0.2	0.1	238	15	790	2.8	0.7	0.6	0.3
					15	2,500	4.5	1.7	1.2	0.7		15	4840	17.2	5.0	3.0	1.9
					15	3,500	6.5	3.0	1.7	0.9		15	6910	25.9	7.2	4.4	2.7
					20	2,500	4.2	1.7	1.2	0.5		20	4930	16.2	4.9	2.9	1.9
					25	2,500	4.0	1.7	1.0	0.5		25	4960	15.7	4.4	2.6	1.6
					30	2,500	3.7	1.5	0.8	0.5		30	4940	16.2	4.0	2.3	1.6
2+12.5	12.5 R	Lift 5	ML	440	15	500	0.8	0.4	0.2	0.1	275	15	1070	2.9	1.0	0.6	0.4
					15	2,500	4.4	2.1	1.1	0.6		15	4990	18.0	5.6	2.9	2.0
					15	3,500	6.5	2.9	1.5	1.0		15	7190	26.0	8.0	4.2	2.9
					20	2,500	3.9	1.7	1.0	0.7		20	5080	18.1	5.5	2.8	1.9
					25	2,500	3.7	1.6	0.7	0.7		25	4950	19.5	5.2	2.5	1.7
					30	2,500	3.6	1.5	0.7	0.7		30	3630	14.0	3.5	1.7	1.2
2+12.5	12.5 R	Lift 6	ML	440	15	500	0.8	0.4	0.2	0.1	203	15	950	2.3	0.6	0.3	0.3
					15	2,500	4.3	2.2	1.0	0.5		15	5030	15.3	17.3	2.1	1.4
					15	3,500	6.3	3.0	1.5	0.9		15	6960	24.8	18.0	3.4	2.3
					20	2,500	3.7	1.8	1.0	0.5		20	4910	14.5	7.3	2.1	1.5
					25	2,500	3.7	1.7	0.8	0.5		25	4920	15.0	6.2	2.0	1.4
					30	2,500	3.7	1.7	0.8	0.5		30	4840	14.7	8.1	2.1	1.4
2+12.5	12.5 R	Lift 7	ML	440	15	--	--	--	--	--	268	15	1020	2.4	0.6	0.4	0.2
					15	2,494	4.0	2.4	1.0	0.7		15	4860	16.2	4.6	2.2	1.4
					15	--	--	--	--	--		15	6920	23.9	6.7	3.1	2.1
					20	2,536	3.9	2.1	1.0	0.6		20	5140	15.8	4.6	2.1	1.5
					25	2,568	3.8	2.1	0.9	0.6		25	5040	16.4	4.7	2.0	1.3
					30	2,563	3.9	2.0	0.9	0.4		30	4930	17.0	4.7	1.9	1.2

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+12.5	12.5 R	Lift 8	ML	430	15	2,591	4.1	2.1	0.9	0.7	273	15	1010	2.6	0.8	0.3	0.2
					20	2,514	3.8	2.0	0.7	0.6		15	4910	16.3	4.9	2.0	1.4
					25	2,501	3.7	1.8	0.6	0.4		15	7070	24.2	7.2	3.0	2.0
					30	2,503	3.8	1.8	0.6	0.4		20	5100	15.9	4.9	1.9	1.3
					15	5,037	8.8	4.3	1.6	1.2		25	5100	16.5	4.9	1.9	1.3
					20	5,029	8.4	4.0	1.3	1.1		30	4930	17.1	5.1	1.9	1.2
					25	5,045	8.6	4.0	1.2	1.0							
					30	5,044	8.7	4.3	1.1	1.0							
2+12.5	12.5 R	Lift 9	ML	390	15	2,482	4.6	1.8	0.9	0.6	137	15	1050	4.7	0.7	0.4	0.3
					20	2,499	4.3	1.7	0.8	0.6		15	5220	19.7	3.7	2.1	1.4
					25	2,441	4.2	1.7	0.7	0.4		15	7000	32.7	5.2	2.8	1.8
					30	2,479	4.3	2.0	0.9	0.3		20	4960	18.8	3.5	1.8	1.2
					15	5,059	10.0	3.7	1.7	1.1		25	4880	22.4	3.3	1.6	1.0
					20	4,969	9.9	4.0	1.8	1.1		30	3560	17.3	2.5	1.1	0.6
					25	4,860	9.4	3.8	1.3	1.0							
					30	4,948	10.0	4.9	1.8	0.8							
2+12.5	12.5 R	101.0	ML	450	15	2,398	4.0	1.5	0.7	0.4	202	15	970	3.1	1.1	0.4	0.4
					20	2,581	4.0	1.6	0.7	0.4		15	4820	16.1	4.6	1.7	1.3
					25	2,552	4.0	1.5	0.6	0.4		15	6840	16.1	6.3	2.3	1.9
					30	2,548	4.0	1.4	0.6	0.3		20	5200	16.0	4.7	1.7	0.7
					15	5,043	8.7	3.1	1.3	1.0		25	5020	16.1	4.8	1.7	1.0
					20	4,934	8.6	3.1	1.2	1.0		30	4930	15.9	4.8	1.7	1.1
					25	5,087	8.9	3.2	1.2	0.9							
					30	5,185	9.0	3.3	1.2	0.9							
					15	10,038	20.0	7.0	2.7	2.0							
					20	9,967	25.1	7.9	2.9	2.0							
					25	--	--	--	--	--							
					30	--	--	--	--	--							
2+12.5	12.5 L	95.0	Lean clay subgrade	250	15	500	1.1	0.6	0.4	0.2	147	15	1000	3.2	1.4	0.7	0.4
					15	2,500	6.7	3.5	1.8	1.1		15	5060	20.6	8.2	3.9	2.3
					15	3,500	10.2	5.2	2.6	1.6		15	6980	33.6	12.7	5.9	3.3
					20	3,000	8.6	4.9	2.5	1.7		20	5060	20.2	9.3	4.7	2.7
					25	3,050	8.3	5.0	3.0	2.4		25	4940	20.6	10.3	5.7	3.6
					30	3,000	7.3	4.2	2.1	1.6		30	4260	16.1	7.7	4.5	3.3

(Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+12.5	12.5 L	Lift 1	ML	260	15	500	1.2	0.6	0.5	0.2	43	15	1050	5.6	3.3	2.0	1.0
					15	2,500	7.2	4.0	2.7	1.2		15	5120	42.9	25.4	14.3	6.9
					15	3,500	11.1	6.4	4.2	2.0		15	7010	82.0	44.9	25.5	11.8
					20	2,500	7.4	4.9	3.2	1.7		20	5200	41.3	30.4	20.3	11.5
					25	2,500	5.6	4.3	2.7	2.2		25	5080	29.9	19.8	13.0	8.9
					30	2,500	5.2	3.9	1.8	1.2		30	4200	20.0	13.8	8.4	5.1
2+12.5	12.5 L	Lift 2	ML	280	15	500	1.2	0.6	0.2	0.2	161	15	1070	3.2	1.5	0.9	0.6
					15	2,500	6.5	3.2	1.7	0.9		15	4900	22.1	10.2	6.3	3.8
					15	3,500	9.3	4.7	2.7	1.3		15	6850	34.2	15.7	9.5	5.7
					20	2,500	6.5	2.9	2.1	1.0		20	5090	23.4	11.5	7.5	4.7
					25	2,500	5.9	2.9	2.2	1.2		25	4970	21.2	10.2	7.0	4.7
					30	2,500	4.9	2.7	1.7	1.2		30	4460	17.3	7.4	4.7	3.3
2+12.5	12.5 R	Lift 3	ML	340	15	500	0.9	0.6	0.2	0.2	257	15	1010	2.4	0.8	0.5	0.3
					15	2,500	5.2	3.1	1.4	1.0		15	4900	18.4	6.6	3.8	2.5
					15	3,500	7.7	4.6	2.1	1.6		15	7010	26.6	9.6	5.6	3.5
					20	2,500	5.1	3.0	1.5	1.0		20	4970	17.9	7.0	4.3	2.8
					25	2,500	4.7	2.7	1.5	1.0		25	4970	17.1	6.4	4.2	3.2
					30	2,500	3.8	2.1	1.0	1.2		30	3660	11.2	3.8	2.2	1.5
2+12.5	12.5 L	Lift 4	ML	330	15	500	1.1	0.7	0.2	0.1	227	15	900	2.7	0.8	0.5	0.4
					15	2,500	5.2	2.6	1.5	0.8		15	4930	18.2	7.1	3.6	2.6
					15	3,500	7.8	4.7	2.3	1.3		15	6860	26.7	10.3	5.3	3.8
					20	2,500	4.7	2.7	1.5	0.8		20	4990	17.5	7.0	3.6	2.6
					25	2,500	4.2	2.5	1.4	0.8		25	4810	16.2	6.2	3.4	2.5
					30	2,500	3.7	2.0	1.0	0.8		30	4710	14.4	5.3	2.8	2.2
2+12.5	12.5 L	Lift 5	ML	430	15	500	0.8	0.1	0.1	0.1	284	15	1000	2.2	0.7	0.6	0.3
					15	2,500	4.5	2.6	1.1	0.7		15	5010	17.6	4.8	2.2	1.9
					15	3,500	6.4	3.7	1.6	1.1		15	6970	24.5	6.3	2.9	2.7
					20	2,500	4.0	2.4	1.2	0.7		20	5040	16.5	5.1	2.6	2.1
					25	2,500	3.7	2.0	1.2	0.7		25	5020	16.4	4.6	2.4	2.1
					30	2,500	3.5	1.8	0.7	0.7		30	3870	12.0	2.9	1.2	1.1

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+12.5	12.5 L	Lift 6	ML	430	15	500	1.1	0.5	0.1	0.1	--	15	900	2.6	0.7	0.4	0.3
					15	2,500	5.1	2.6	0.9	0.7		15	5000	17.3	4.7	2.2	1.8
					15	3,500	7.2	3.7	1.3	1.0		15	--	--	--	--	--
					20	2,500	3.7	2.2	1.0	0.5		20	5060	16.7	4.9	2.2	1.8
					25	2,500	3.6	2.2	1.0	0.5		25	5050	17.1	4.7	2.1	1.7
					30	2,500	3.4	2.2	0.7	0.5		30	3960	12.2	3.1	1.2	1.0
2+12.5	12.5 L	Lift 7	ML	410	15	--	--	--	--	--	242	15	970	2.4	0.6	0.4	0.2
					15	2,562	4.1	2.4	1.0	1.0		15	4890	16.8	4.6	2.3	1.5
					15	--	--	--	--	--		15	6950	25.3	7.1	3.4	2.3
					20	2,521	3.9	2.1	1.0	1.6		20	4940	16.4	4.7	2.2	1.5
					25	2,482	3.7	2.0	1.0	1.1		25	5010	17.6	4.6	2.0	1.4
					30	2,515	3.6	2.0	0.9	0.1		30	4960	18.7	4.6	1.9	1.3
2+12.5	12.5 L	Lift 8	MC	420	15	2,591	4.1	2.4	0.8	0.6	243	15	1040	2.3	0.9	0.4	0.3
					20	2,513	4.0	2.1	0.8	0.6		15	4800	16.4	5.0	2.5	1.5
					25	2,515	3.9	2.1	0.6	0.4		15	6790	24.6	7.1	3.6	2.2
					30	2,530	3.9	2.2	0.6	0.3		20	4980	15.5	4.5	2.1	1.3
					15	5,099	9.1	5.0	1.7	1.1		25	4950	16.7	4.6	2.0	1.1
					20	5,030	8.9	4.9	1.6	1.1		30	4960	18.5	4.8	1.9	1.1
					25	4,957	8.8	5.0	1.1	0.9							
					30	5,151	9.0	5.0	1.2	0.8							
2+12.5	℄ Lane 2	Lift 9	Blend II (Cement stabilized)	680	15	2,554	2.0	1.3	0.7	0.4	614	15	1080	0.9	0.5	0.3	0.2
					20	2,434	1.9	1.2	0.6	0.4		15	5170	6.3	3.6	1.8	1.3
					25	2,517	1.8	1.1	0.6	0.3		15	6890	9.1	5.1	2.5	3.2
					30	2,615	1.9	1.1	0.4	0.2		20	5190	5.5	3.3	1.8	1.0
					15	4,968	4.1	2.8	1.2	0.9		25	5000	5.0	3.0	1.5	0.9
					20	4,943	4.1	2.7	1.2	0.9		30	4990	4.9	2.9	1.3	0.7
					25	5,072	4.0	2.6	1.1	0.8							
					30	4,962	3.9	2.4	1.0	0.6							
					15	10,030	10.1	6.4	2.9	1.8							
					20	9,929	9.8	6.2	2.8	1.8							
					25	9,919	9.2	5.9	2.3	1.6							
					30	10,000	9.4	6.0	2.1	1.2							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+12.5	℄ Lane 2	101.0	Blend II (Cement stabilized)	1060	15	2,506	1.4	1.0	0.6	0.3	761	15	990	0.4	0.3	0.2	0.1
					20	2,535	1.4	1.0	0.6	0.3		15	4880	3.8	1.9	1.4	0.9
					25	2,532	1.2	0.9	0.4	0.3		15	7010	6.6	3.1	2.1	1.4
					30	2,562	1.2	0.9	0.4	0.2		20	5090	3.6	1.9	1.3	0.9
					15	4,944	3.0	2.0	1.1	0.8		25	5000	3.4	1.8	1.2	0.8
					20	5,008	3.0	2.1	1.1	0.8		30	4970	3.1	1.6	1.0	0.6
					25	4,983	2.7	1.9	1.0	0.7							
					30	5,079	2.7	1.9	1.0	0.6							
					15	9,869	6.6	4.6	2.4	1.6							
					20	10,104	6.8	4.9	2.6	1.7							
					25	10,209	6.4	4.6	2.2	1.4							
					30	9,799	6.1	4.3	2.0	1.1							
2+12.5	℄ Lane 3	Lift 9	Blend II	550	15	2,519	3.1	1.8	0.9	0.7	411	15	1010	1.6	0.6	0.3	0.2
					20	2,571	3.0	1.7	0.9	0.7		15	5130	9.3	4.4	2.4	1.5
					25	2,517	2.8	1.4	0.8	0.6		15	6940	13.7	6.3	3.3	2.1
					30	2,559	2.8	1.3	0.6	0.4		20	5240	9.3	4.4	2.4	1.6
					15	4,980	6.7	3.6	1.9	1.2		25	5050	8.9	4.1	2.1	1.5
					20	4,963	6.2	3.4	1.8	1.2		30	4900	8.7	3.8	1.9	1.2
					25	5,073	6.0	3.2	1.4	1.0							
					30	4,903	5.8	3.0	0.7	0.9							
					15	9,962	15.3	8.2	4.0	2.7							
					20	10,001	14.4	7.9	3.9	2.8							
					25	9,837	13.4	7.3	4.1	2.2							
					30	10,057	20.4	8.0	--	2.0							
2+12.5	℄ Lane 3	101.0	Blend II (SST)	680	15	2,528	2.1	1.2	0.7	0.6	459	15	960	1.0	0.4	0.3	0.2
					20	2,494	2.0	1.1	0.7	0.4		15	4920	6.2	2.9	1.7	1.2
					25	2,563	1.9	1.0	0.4	0.3		15	6940	10.6	4.4	2.6	1.8
					30	2,500	1.8	1.0	0.4	0.3		20	5050	5.9	2.9	1.7	1.2
					15	4,950	4.4	2.7	1.3	1.0		25	5110	5.8	2.8	1.5	1.1
					20	5,030	4.3	2.6	1.3	1.0		30	5050	5.7	2.6	1.4	0.9
					25	5,023	4.0	2.3	1.0	0.8							
					30	5,040	4.0	2.2	0.3	0.7							
					15	9,974	10.2	6.0	2.9	2.0							
					20	9,932	9.8	5.8	2.8	2.0							
					25	10,126	9.7	5.6	2.2	1.7							
					30	9,865	9.8	5.4	2.3	1.7							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	12.5 R	95.0	Lean clay subgrade	240	15	500	1.2	0.7	0.3	0.2	110	15	970	3.7	1.3	0.6	0.3
					15	2,500	7.0	3.9	1.7	1.1		15	4980	25.0	8.0	3.4	1.9
					15	3,500	10.7	5.1	2.4	1.5		15	7000	43.3	13.2	5.2	2.9
					20	3,000	8.7	4.7	2.4	1.8		20	4850	25.2	9.3	4.5	2.6
					25	3,000	7.9	4.5	2.2	1.8		25	4960	26.9	9.9	5.4	3.9
					30	3,000	7.6	4.2	1.9	1.6		30	4120	22.0	7.7	4.1	2.9
2+37.5	12.5 R	Lift 1	ML								33	15	1010	3.9	1.7	0.8	0.4
												15	5040	29.9	11.9	5.6	2.6
												15	6780	82.0	19.2	8.2	3.7
												20	5030	35.1	16.1	8.5	4.8
												25	4900	34.2	15.9	7.1	5.1
												30	3750	23.1	11.9	6.4	4.4
2+37.5	12.5 R	Lift 2	ML	330	15	500	1.1	0.6	0.2	0.1	183	15	980	3.3	0.9	0.5	0.3
					15	2,500	5.7	3.1	1.5	0.8		15	5120	24.1	7.2	3.9	2.4
					15	3,500	8.5	4.7	2.2	1.2		15	6860	33.6	10.2	5.5	3.2
					20	2,500	5.7	3.3	1.7	1.0		20	5140	22.1	8.4	4.8	3.0
					25	2,500	5.0	2.9	1.7	1.2		25	4750	19.8	7.0	4.5	3.2
					30	2,500	5.0	2.9	1.3	0.7		30	2840	10.3	3.7	2.0	1.3
2+37.5	12.5 R	Lift 3	ML	390	15	500	1.0	0.6	0.2	0.1	260	15	1020	2.7	0.9	0.7	0.6
					15	2,500	5.0	2.7	1.2	0.8		15	4890	18.3	5.4	3.2	2.2
					15	3,500	7.2	3.8	1.7	1.2		15	6710	25.3	7.0	4.1	2.8
					20	2,500	4.7	2.7	1.4	1.0		20	5040	17.1	5.7	3.2	2.0
					25	2,500	4.2	2.3	1.4	1.1		25	4710	16.8	5.4	3.4	2.4
					30	2,500	4.0	2.0	0.9	0.7		30	3120	9.8	3.0	1.9	1.7
2+37.5	12.5 R	Lift 4	ML	400	15	500	0.9	0.5	0.2	0.1	224	15	680	2.9	0.8	0.5	0.3
					15	2,500	4.7	2.4	0.9	0.7		15	4970	15.8	5.2	3.2	2.0
					15	3,500	6.9	3.3	1.5	1.1		15	6850	24.2	7.5	4.7	2.8
					20	2,500	4.3	2.3	1.2	0.7		20	4920	15.4	5.2	3.3	2.0
					25	2,500	3.9	2.1	1.2	0.9		25	4930	16.0	5.3	3.5	2.5
					30	2,500	3.9	1.8	0.7	0.5		30	5010	15.9	4.8	2.7	1.8

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	12.5 R	Lift 5	ML	430	15	500	0.8	0.5	0.2	0.1	228	15	1030	2.8	0.7	0.5	0.4
					15	2,500	4.5	2.2	1.1	0.7		15	4990	16.8	4.3	2.5	1.8
					15	3,500	6.6	3.1	1.5	1.1		15	6840	24.9	6.1	3.5	2.4
					20	2,500	4.0	2.1	1.0	0.8		20	5060	16.2	4.3	2.5	1.7
					25	2,500	4.0	2.1	1.1	0.8		25	5080	16.7	4.3	2.4	1.8
					30	2,500	3.7	1.9	0.8	0.8		30	4900	16.4	3.9	1.9	1.3
2+37.5	12.5 R	Lift 6	ML	440	15	500	0.8	0.5	0.2	0.1	288	15	1010	2.5	0.8	0.4	0.3
					15	2,500	4.4	2.5	0.8	0.7		15	4770	16.2	3.6	2.2	1.6
					15	3,500	6.4	3.3	1.2	0.9		15	6900	23.6	5.3	3.2	2.3
					20	2,500	4.0	2.2	0.8	0.6		20	5070	15.8	3.9	2.2	1.5
					25	2,500	4.0	2.2	0.7	0.5		25	5060	16.7	4.2	2.2	1.3
					30	2,500	3.8	2.2	0.7	0.5		30	5050	17.3	4.2	2.1	1.3
2+37.5	12.5 R	Lift 7	ML	430	15	--	--	--	--	--	228	15	1050	2.4	0.6	0.4	0.3
					15	2,467	4.0	2.4	0.9	0.7		15	5130	15.9	4.3	2.3	1.6
					15	--	--	--	--	--		15	6960	23.7	6.2	3.3	2.1
					20	2,567	4.0	2.3	0.8	0.6		20	5060	16.3	4.1	2.1	1.4
					25	2,507	4.0	2.4	0.8	0.4		25	4980	16.5	4.3	2.0	1.2
					30	2,544	3.9	2.3	0.7	0.6		30	4590	15.3	4.0	1.8	1.2
2+37.5	12.5 R	Lift 8	ML	400	15	2,530	4.2	2.0	0.9	0.7	218	15	920	2.5	0.7	0.4	0.3
					20	2,546	4.1	2.0	0.9	0.6		15	4970	17.1	4.9	2.3	1.6
					25	2,493	4.0	2.0	0.7	0.4		15	7020	26.5	7.0	3.2	2.2
					30	2,490	4.1	2.1	0.8	0.4		20	4990	16.8	4.6	2.1	1.5
					15	4,995	9.1	4.3	1.8	1.2		25	5050	17.8	4.7	1.9	1.2
					20	5,084	9.2	4.6	1.7	1.1		30	4810	18.2	5.0	2.0	1.6
					25	5,037	9.4	4.8	1.4	1.0							
					30	5,150	9.8	5.2	1.4	1.0							
2+37.5	12.5 R	Lift 9	ML	390	15	2,497	4.2	1.6	0.8	0.6	224	15	1340	2.7	0.8	0.4	0.2
					20	2,498	4.0	1.3	0.7	0.4		15	5120	15.0	4.2	1.9	1.3
					25	2,457	4.0	1.3	0.6	0.3		15	7020	23.5	6.2	2.6	1.7
					30	2,499	4.2	1.6	0.8	0.4		20	4920	13.7	3.9	1.5	1.0
					15	4,932	9.1	3.1	1.6	1.1		25	4950	15.0	4.3	1.5	0.9
					20	5,062	9.2	3.0	1.3	1.0		30	5060	16.1	4.6	1.7	1.0
					25	4,818	9.1	3.2	1.3	0.8							
					30	4,826	9.7	3.6	1.6	0.9							

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	12.5 R	101.0	ML	460	15	2,472	3.7	1.4	0.7	0.4	203	15	1010	2.6	0.7	0.3	0.2
					20	2,500	3.6	1.4	0.7	0.4		15	4890	15.0	3.7	1.6	1.0
					25	2,495	3.6	1.4	0.6	0.4		15	7000	25.4	5.5	2.3	1.5
					30	2,465	3.4	1.3	0.4	0.3		20	5200	15.0	4.0	1.7	1.2
					15	5,018	8.0	3.0	1.2	0.9		25	5070	15.1	3.8	1.5	1.0
					20	5,035	8.0	3.0	1.2	1.0		30	4950	16.2	3.9	1.5	1.0
					25	5,072	8.3	3.2	1.2	0.9							
					30	5,106	8.3	3.2	1.0	0.8							
					15	10,001	19.0	7.0	2.7	1.9							
					20	10,023	20.0	7.3	--	1.9							
					25	10,015	--	8.6	2.9	2.0							
					30	10,220	--	8.0	2.3	1.7							
2+37.5	12.5 L	95.0	Lean clay subgrade	220	15	500	1.2	0.7	0.4	0.2	96	15	930	4.1	1.5	0.8	1.3
					15	2,500	7.7	4.2	2.1	1.2		15	4890	26.4	9.6	4.2	2.9
					15	3,500	12.1	6.6	3.0	1.7		15	7060	49.1	16.4	6.9	3.5
					20	3,100	10.8	7.1	3.7	2.8		20	5050	31.8	13.3	6.5	3.4
					25	3,100	10.0	6.1	3.0	2.2		25	4940	31.9	14.5	7.7	4.9
					30	--	--	--	--	--		30	4050	25.5	12.0	6.2	3.5
2+37.5	12.5 L	Lift 1	ML	140	15	500	1.6	2.2	2.5	0.9	66	15	1010	5.7	5.6	5.5	4.1
					15	2,500	15.3	4.2	10.2	6.0		15	4980	41.1	24.0	18.4	15.9
					15	3,500	--	--	--	--		15	6970	71.1	42.0	21.6	19.9
					20	2,500	9.0	8.7	5.0	2.7		20	5140	40.2	26.6	14.2	6.4
					25	2,500	6.0	6.0	4.1	1.9		25	5030	27.8	19.6	13.2	5.5
					30	2,500	4.0	3.7	3.9	1.5		30	3790	16.0	11.0	7.0	3.6
2+37.5	12.5 L	Lift 2	ML	160	15	500	1.5	0.8	0.9	0.3	63	15	1020	5.8	3.4	2.3	1.1
					15	2,500	10.0	6.7	6.7	1.6		15	5070	48.4	27.8	17.8	8.2
					15	3,500	16.0	11.2	11.0	2.5		15	6970	78.6	43.9	26.6	11.7
					20	2,500	10.2	5.5	5.5	3.0		20	5090	35.1	22.7	16.5	9.9
					25	2,500	7.4	6.1	3.4	2.0		25	5060	26.7	17.2	12.0	6.1
					30	2,500	6.2	4.9	2.7	1.3		30	4330	17.5	10.6	8.1	4.8

(Continued)

Table A8 (Continued)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	12.5 L	Lift 3	ML	250	15	500	1.2	0.8	0.3	0.2	175	15	1040	3.3	1.5	0.9	0.6
					15	2,500	6.5	4.2	2.0	1.2		15	4990	21.6	10.0	6.3	3.9
					15	3,500	9.8	6.5	3.2	2.1		15	7020	33.2	14.9	9.1	5.7
					20	2,500	7.0	5.5	3.2	2.2		20	5010	20.8	10.8	7.6	5.4
					25	2,500	5.1	3.8	2.0	1.4		25	5050	18.3	8.2	5.1	3.2
					30	2,500	4.5	4.2	1.6	1.0		30	4690	15.1	6.6	4.1	2.6
2+37.5	12.5 L	Lift 4	ML	320	15	500	1.2	0.7	0.3	0.2	189	15	870	3.5	1.2	0.9	0.5
					15	2,500	5.7	4.0	1.8	1.1		15	5000	22.2	9.0	5.8	3.4
					15	3,500	8.7	5.9	2.9	1.6		15	6930	32.4	14.2	8.8	4.8
					20	2,500	5.7	4.3	2.7	1.6		20	4850	21.2	10.1	7.2	4.7
					25	2,500	4.2	3.0	1.7	1.2		25	4830	17.7	7.1	6.2	3.5
					30	2,500	4.2	3.0	1.5	0.7		30	4040	14.5	5.8	3.6	2.0
2+37.5	12.5 L	Lift 5	ML	400	15	500	0.8	0.4	0.1	0.1	203	15	980	3.0	1.0	0.6	0.4
					15	2,500	4.6	2.4	1.0	0.7		15	5120	18.1	5.5	3.0	2.2
					15	3,500	6.7	3.5	1.3	1.0		15	6870	26.7	7.9	4.2	2.9
					20	2,500	4.0	2.4	1.0	0.7		20	5030	17.0	5.4	3.2	2.2
					25	2,500	3.7	2.0	0.7	0.6		25	5000	16.0	4.4	2.3	1.6
					30	2,500	3.5	1.9	0.6	0.5		30	4990	17.2	4.8	2.8	1.9
2+37.5	12.5 L	Lift 6	ML	430	15	500	0.8	0.4	0.1	--	218	15	1020	2.4	0.7	0.4	0.3
					15	2,500	4.6	2.1	0.9	0.5		15	5060	16.1	4.6	2.5	1.7
					15	3,500	6.5	3.0	1.2	0.8		15	6910	24.6	6.4	3.4	2.4
					20	2,500	4.2	2.2	1.1	0.7		20	4920	15.8	4.8	2.8	2.0
					25	2,500	3.7	1.7	0.7	0.5		25	5120	16.5	4.0	1.9	1.5
					30	2,500	3.7	1.7	0.7	0.4		30	4870	16.4	4.4	2.1	1.4
2+37.5	12.5 L	Lift 7	ML	450	15	--	--	--	--	--	--	15	1130	3.0	0.8	0.5	0.4
					15	2,466	3.9	2.0	0.9	0.7		15	5090	17.6	4.7	2.5	1.8
					15	--	--	--	--	--		15	7060	--	6.0	3.3	2.5
					20	2,542	3.8	2.0	0.9	0.7		20	4950	19.4	4.2	2.2	1.5
					25	2,516	3.6	1.9	0.7	0.4		25	5020	21.1	4.2	2.0	1.6
					30	2,529	3.4	1.8	0.7	0.6		30	3880	16.3	2.7	1.2	1.0

(Continued)

Table A8 (Continued)

				WES 16 kip (Peak Response)							RR 2008 (Peak-Peak Response)						
Station ft	℄ Offset ft	Lift or Elevation ft	Material	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	12.5 L	Lift 8	ML	450	15	2,453	3.9	2.2	0.8	0.6	276	15	910	2.7	0.9	0.4	0.3
					20	2,559	3.9	2.2	0.8	0.6		15	4970	17.9	4.6	2.1	1.4
					25	2,552	3.7	2.1	0.7	0.4		15	7010	25.3	6.6	3.0	2.0
					30	2,575	3.7	2.0	0.6	0.4		20	4980	18.3	4.9	2.1	1.4
					15	5,009	8.7	5.0	1.7	1.2		25	5080	18.3	4.5	1.8	1.3
					20	5,111	8.4	4.9	1.4	1.1		30	4440	16.4	3.9	1.4	0.9
					25	5,073	8.3	4.8	1.3	1.0							
					30	4,956	8.2	4.9	1.1	0.9							
2+37.5	℄ Lane 2	Lift 9	Blend II (Cement stabilized)	670	15	2,514	2.0	1.1	0.7	0.4	339	15	1090	2.0	0.5	0.3	0.2
					20	2,496	2.0	1.1	0.7	0.4		15	4880	11.9	3.2	1.8	1.2
					25	2,518	1.8	1.0	0.4	0.3		15	6950	18.0	4.7	2.6	1.6
					30	2,451	1.8	1.0	0.4	0.2		20	5030	11.3	3.2	1.8	1.1
					15	4,940	4.2	2.4	1.2	0.9		25	4990	11.0	2.9	1.5	0.8
					20	5,158	4.3	2.6	1.3	1.0		30	5010	10.3	2.7	1.5	0.8
					25	4,995	4.0	2.2	1.0	0.7							
					30	5,023	4.0	2.2	1.0	0.7							
					15	9,676	9.8	5.6	2.7	1.8							
					20	10,097	10.1	5.8	2.8	1.9							
					25	9,966	9.4	5.2	2.1	1.3							
					30	10,023	9.7	5.4	2.6	1.3							
2+37.5	℄ Lane 2	101.0	Blend II (Cement stabilized)	1080	15	2,419	1.6	1.0	0.7	0.4	817	15	1070	0.5	0.3	0.2	0.1
					20	2,437	1.4	0.9	0.6	0.3		15	5080	4.1	2.1	1.4	1.0
					25	2,498	1.3	0.9	0.4	0.3		15	7040	6.5	3.0	2.0	1.3
					30	2,515	1.3	0.8	0.4	0.2		20	5050	3.7	1.8	1.2	0.9
					15	4,988	3.2	2.0	1.2	0.9		25	5090	3.5	1.7	1.0	0.7
					20	5,022	3.0	2.0	1.1	0.8		30	4950	3.3	1.6	1.0	0.6
					25	4,986	3.0	1.8	1.0	0.2							
					30	5,030	2.9	1.8	1.0	0.7							
					15	9,930	7.0	4.2	2.6	1.8							
					20	10,018	6.7	4.2	2.4	1.6							
					25	10,120	6.4	4.0	2.1	1.3							
					30	10,286	6.6	3.9	2.0	1.2							

(Continued)

Table A8 (Concluded)

Station ft	℄ Offset ft	Lift or Elevation ft	Material	WES 16 kip (Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils	RR 2008 (Peak-Peak Response) DSM kips/in.	Frequency Hz	Force lb	Δ_o mils	Δ_{18} mils	Δ_{32} mils	Δ_{46} mils
						Item 5 (Continued)											
2+37.5	℄ Lane 3	Lift 9	Blend II	560	15	2,529	2.9	1.5	0.6	0.6	493	15	1030	1.3	0.5	0.3	0.2
					20	2,258	2.7	1.3	0.8	0.6		15	5010	8.5	3.5	2.0	1.5
					25	2,542	2.6	1.2	1.2	0.4		15	7080	12.7	5.2	3.0	2.5
					30	2,545	2.6	1.2	0.6	0.3		20	5130	8.3	3.5	2.1	2.0
					15	4,957	6.0	3.0	1.7	1.1		25	5070	8.1	3.3	1.9	1.2
					20	4,914	5.6	2.9	1.6	1.0		30	5030	8.3	3.3	1.8	1.0
					25	4,955	5.4	2.7	1.2	0.9							
					30	5,112	5.7	2.8	1.3	0.9							
					15	10,171	14.3	7.1	3.7	2.3							
					20	10,017	13.2	6.8	3.4	2.3							
					25	10,021	13.3	6.8	5.0	2.0							
					30	10,023	17.3	7.1	7.1	1.8							
2+37.5	℄ Lane 3	101.0	Blend II (SST)	660	15	2,512	2.3	1.2	0.7	0.4	515	15	950	1.1	0.5	0.3	0.3
					20	2,484	2.0	1.1	0.6	0.4		15	4870	7.3	2.8	1.7	1.2
					25	2,514	2.0	1.0	0.6	0.3		15	6880	11.2	4.0	2.5	1.7
					30	2,498	2.0	1.0	0.4	0.3		20	5180	6.9	2.7	1.7	1.2
					15	4,979	4.8	2.7	1.2	1.0		25	5160	6.6	2.5	1.5	1.0
					20	5,027	4.6	2.6	1.2	0.9		30	4970	6.5	2.4	1.3	0.9
					25	5,056	4.4	2.3	1.0	0.8							
					30	5,010	4.4	2.3	1.0	0.7							
					15	9,965	11.0	6.0	2.8	2.0							
					20	10,192	10.7	5.8	2.6	1.9							
					25	10,126	10.8	5.7	2.3	1.6							
					30	10,067	11.3	6.1	2.4	1.6							

Table A9

Nondestructive Test Results During Construction

Falling Weight Deflectometer

Lane	Station	Lift or Elevation ft	Material	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
				Item 1					
1	0+12.5	Lift 9	Crushed limestone	1.44	348	280	115	60	1.24
				3.44	477	390	160	80	1.22
				6.50	615	520	220	115	1.18
				14.94	943	845	370	190	1.12
1	0+12.5	101	Crushed limestone	1.44	263	153	44	28	1.72
				3.44	394	248	66	43	1.59
				6.50	549	305	94	60	1.80
				14.94	904	492	165	--	2.31
1	0+37.5	Lift 9	Crushed limestone	1.44	334	230	90	50	1.24
				3.44	475	330	140	70	1.44
				6.50	626	420	195	100	1.49
				F D H	--	725	325	170	--
1	0+37.5	101	Crushed limestone	1.44	259	187	55	28	1.39
				3.44	394	315	97	47	1.25
				6.50	547	385	133	68	1.42
				14.94	901	629	221	113	1.43
2	0+12.5	Lift 9	Blend I (cement stabilized)	1.44	317	270	120	55	1.17
				3.44	446	360	180	90	1.24
				6.50	610	465	240	120	1.31
				14.94	958	715	400	200	1.34
2	0+12.5	101	Blend I (cement stabilized)	1.44	275	70	46	30	3.48
				3.44	408	112	68	42	3.64
				6.50	567	156	95	42	3.63
				14.94	925	250	157	104	3.70
2	0+37.5	Lift 9	Blend I (cement stabilized)	1.44	316	230	105	45	1.37
				3.44	443	320	160	70	1.38
				6.50	609	410	210	100	1.49
				14.94	948	600	335	160	1.58
2	0+37.5	101	Blend I (cement stabilized)	1.44	271	65	46	31	4.17
				3.44	408	94	68	46	4.34
				6.50	564	135	95	63	4.18
				14.94	929	218	155	105	4.26
3	0+12.5	Lift 9	Crushed limestone	1.44	317	165	75	45	1.92
				3.44	487	245	125	70	1.99
				6.50	633	330	170	100	1.92
				14.94	953	575	290	155	1.66
3	0+12.5	101	Crushed limestone	1.44	271	260	52	31	1.04
				3.44	405	365	79	48	1.11
				6.50	567	444	107	65	1.28
				14.94	927	645	171	103	1.44

(Continued)

Table A9 (Continued)

Lane	Station	Lift or Elevation ft	Material	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
			Item 1 (Concluded)						
3	0+37.5	Lift 9	Crushed limestone	1.44	311	290	100	40	1.07
				3.44	433	400	150	75	1.08
				6.50	608	535	200	100	1.14
				14.94	963	830	340	165	1.16
3	0+12.5	101	Crushed limestone	1.44	277	69	31	22	4.01
				3.44	415	137	47	36	3.03
				6.50	573	154	64	53	3.72
				14.94	933	278	107	81	3.36
			Item 2						
1	0+62.5	Lift 9	Crushed limestone	1.44	--	--	--	--	--
				3.44	--	--	--	--	--
				6.50	--	--	--	--	--
				14.94	--	--	--	--	--
1	0+62.5	101	Crushed limestone	1.44	264	142	50	29	1.86
				3.44	391	194	69	40	2.02
				6.50	549	299	106	55	1.84
				14.94	902	509	179	91	1.77
1	0+87.5	Lift 9	Crushed limestone	1.44	316	495	70	30	0.64
				3.44	442	680	110	50	0.65
				6.50	609	870	145	70	0.70
				14.94	960	1440	240	120	0.67
1	0+87.5	101	Crushed limestone	1.44	259	327	106	33	0.79
				3.44	392	411	166	56	0.95
				6.50	609	870	145	70	0.70
				14.94	895	1050	389	123	0.85
2	0+62.5	Lift 9	Blend II (cement stabilized)	1.44	301	175	85	20	1.72
				3.44	450	270	130	40	1.67
				6.50	607	365	180	55	1.66
				14.94	964	565	290	90	1.71
2	0+62.5	101	Blend II (cement stabilized)	1.44	267	97	56	29	2.75
				3.44	400	159	90	40	2.52
				6.50	558	215	122	58	2.60
				14.94	914	349	198	94	2.62
2	0+87.5	Lift 9	Blend II (cement stabilized)	1.44	270	785	170	25	0.34
				3.44	427	1170	265	40	0.36
				6.50	598	1480	355	60	0.40
				14.94	952	2120	550	95	0.45
2	0+87.5	101	Blend II (cement stabilized)	1.44	263	142	70	35	1.85
				3.44	392	189	99	52	2.07
				14.94	902	437	247	126	2.06
3	0+62.5	Lift 9	Crushed limestone	1.44	299	400	100	20	0.75
				3.44	421	540	75	40	0.78
				6.50	590	680	90	50	0.87
				14.94	950	985	200	80	0.96

(Continued)

(Sheet 2 of 6)

Table A9 (Continued)

Lane	Station	Lift or Ele- vation ft	Material	Drop Height in.	Pres- sure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
			Item 2 (Concluded)						
3	0+62.5	101	Crushed	1.44	280	147	49	27	1.90
			limestone	3.44	409	252	81	42	1.62
				6.50	565	299	102	54	1.89
				14.94	927	501	174	88	1.85
3	0+87.5	Lift 9	Crushed	1.44	301	475	80	20	0.63
			limestone	3.44	417	655	120	40	0.64
				6.50	586	810	160	55	0.72
				14.94	959	1265	250	100	0.76
3	0+87.5	101	Crushed	1.44	267	142	54	29	1.88
			limestone	3.44	410	258	88	42	1.59
				6.50	567	312	113	54	1.82
				14.94	925	552	188	90	1.68
			Item 3						
1	1+12.5	Lift 9	Blend II	1.44	307	580	80	30	0.53
				3.44	425	805	100	40	0.53
				6.50	584	965	60	60	0.61
				14.94	939	1860	80	80	0.50
1	0+12.5	101	Blend II	1.44	272	414	66	26	0.66
				3.44	401	595	104	36	0.68
				6.50	567	804	138	49	0.71
				14.94	922	1260	115	76	0.73
1	0+37.5	Lift 9	Blend II	1.44	299	460	70	30	0.65
				3.44	423	655	110	40	0.65
				6.50	594	840	150	60	0.71
				14.94	961	1295	215	90	0.74
1	1+37.5	101	Blend II	1.44	282	347	62	27	0.81
				3.44	411	536	91	37	0.77
				6.50	564	685	120	51	0.82
				14.94	926	1005	185	79	0.92
2	1+12.5	Lift 9	Lean mix	1.44	--	--	--	--	--
			concrete	3.44	--	--	--	--	--
			Blend II	6.50	--	--	--	--	--
				14.94	--	--	--	--	--
2	1+12.5	101	Lean mix	1.44	278	40	32	23	6.95
			concrete	3.44	401	58	50	33	6.91
			Blend II	6.50	554	81	64	47	6.84
				14.94	920	132	105	76	6.97
2	1+37.5	Lift 9	Lean mix	1.44	--	--	--	--	--
			concrete	3.44	--	--	--	--	--
			Blend II	6.50	--	--	--	--	--
				14.94	--	--	--	--	--

(Continued)

Table A9 (Continued)

Lane	Station	Lift or Elevation ft	Material	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
			Item 3 (Concluded)						
2	1+37.5	101	Lean mix	1.44	264	39	33	23	6.77
			concrete	3.44	403	59	49	35	6.83
			Blend II	6.50	556	82	65	47	6.78
				14.94	914	134	107	78	6.82
3	1+12.5	Lift 9	Blend II	1.44	283	550	75	20	0.51
			(DBST)	3.44	418	775	65	45	0.54
				6.50	585	1005	115	65	0.58
				14.94	940	1495	130	105	0.63
3	1+12.5	101	Blend II	1.44	278	194	61	30	1.43
			(DBST)	3.44	410	311	97	45	1.32
				6.50	559	396	126	60	1.41
				14.94	917	688	215	99	1.33
3	1+37.5	Lift 9	Blend II	1.44	277	515	80	30	0.54
			(DBST)	3.44	420	780	120	45	0.54
				6.50	585	1005	165	60	0.58
				14.94	907	1635	205	110	0.55
3	1+37.5	101	Blend II	1.44	266	206	60	31	1.29
			(DBST)	3.44	403	322	97	48	1.25
				6.50	559	407	130	62	1.37
				14.95	914	671	218	101	1.36
			Item 4						
1	1+62.5	Lift 9	Blend I	1.44	303	455	70	20	0.67
				3.44	426	635	100	40	0.67
				6.50	596	815	130	50	0.73
				14.94	963	1310	202	90	0.74
1	1+62.5	101	Blend I	1.44	257	360	56	25	0.71
				3.44	359	507	80	36	0.71
				6.50	473	683	110	53	0.69
				14.94	735	1107	174	83	0.66
1	1+87.5	Lift 9	Blend I	1.44	306	1310	215	90	0.23
				3.44	306	750	80	40	0.41
				6.50	594	975	110	50	0.61
				14.94	951	1500	170	90	0.63
1	1+87.5	101	Blend I	1.44	268	352	52	23	0.76
				3.44	402	482	68	36	0.83
				6.50	559	689	102	48	0.81
				14.94	920	1093	161	76	0.84
2	1+62.5	Lift 9	Blend I	1.44	305	395	70	20	0.77
			(cement	3.44	423	500	100	30	0.85
			stabilized)	6.50	615	655	140	45	0.94
				14.94	985	995	230	80	0.99
2	1+62.5	101	Blend I	1.44	266	105	56	28	2.53
			(cement	3.44	397	149	79	40	2.66
			stabilized)	6.50	553	202	112	55	2.74

(Continued)

(Sheet 4 of 6)

Table A9 (Continued)

Lane	Station	Lift or Elevation ft	Material	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
			Item 4 (Concluded)						
2	1+87.5	Lift 9	Blend I	1.44	316	165	60	20	1.92
			(cement	3.44	436	240	90	30	1.82
			stabilized	6.50	602	304	120	50	1.77
				14.94	966	480	210	80	2.01
2	1+87.5	101	Blend I	1.44	267	116	49	21	2.30
			(cement	3.44	392	157	72	33	2.50
			stabilized)	6.50	545	214	99	46	2.55
3	1+62.5	Lift 9	Blend I	1.44	267	116	49	21	2.30
			(ST)	3.44	419	695	120	40	0.60
				6.50	597	900	160	60	0.66
				14.94	959	1380	260	90	0.69
3	1+62.5	101	Blend I	1.44	266	264	65	33	1.01
			(ST)	3.44	401	419	103	49	0.96
				6.50	555	535	136	65	1.04
3	1+87.5	Lift 9	Blend I	1.44	288	470	90	30	0.61
			(ST)	3.44	415	625	120	40	0.66
				6.50	585	855	170	60	0.68
				14.94	953	1340	280	100	0.71
3	1+87.5	101	Blend I	1.44	266	212	39	17	1.25
			(ST)	3.44	401	375	105	39	1.07
				6.50	557	476	132	61	1.17
				14.94	913	795	220	101	1.15
			Item 5						
1	2+12.5	Lift 9	ML	1.44	225	825	110	60	0.27
				3.44	326	690	160	50	0.47
				6.50	455	1635	210	110	0.28
				14.94	745	2365	350	170	0.32
1	2+12.5	101	ML	1.44	277	1010	92	37	0.27
				3.44	397	1337	121	52	0.30
				6.50	543	1673	165	68	0.32
				14.94	892	2370	261	102	0.38
1	2+37.5	Lift 9	ML	1.44	308	700	110	40	0.44
				3.44	434	1140	175	60	0.38
				6.50	612	1390	240	80	0.44
				14.94	962	2660	405	150	0.36
1	2+37.5	101	ML	1.44	268	835	77	34	0.32
				3.44	394	1077	119	51	0.37
				6.50	555	1447	167	72	0.38
				14.94	896	2197	277	110	0.41
2	2+12.5	Lift 9	Blend II	1.44	311	175	75	30	1.78
			(cement	3.44	466	265	130	50	1.76
			stabilized)	6.50	623	370	180	70	1.68
				14.94	980	590	295	125	1.66

(Continued)

Table A9 (Concluded)

Lane	Station	Lift or Elevation ft	Material	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/micron
			Item 5 (Concluded)						
2	2+12.5	101	Blend II	1.44	269	84	47	26	3.20
			(cement	3.44	390	130	74	38	3.00
			stabilized	6.50	551	185	110	55	2.98
				14.94	908	310	189	97	2.92
2	2+37.5	Lift 9	Blend II	1.44	325	170	80	30	1.91
			(cement	3.44	459	240	120	50	1.91
			stabilized)	6.50	625	330	170	70	1.89
				14.94	968	535	270	120	1.81
2	2+37.5	101	Blend II	1.44	265	88	47	27	3.01
			(cement	3.44	392	141	70	35	2.78
			stabilized)	6.50	548	178	98	54	3.08
				14.94	907	290	167	95	3.13
3	2+12.5	Lift 9	Blend II	1.44	292	355	90	30	0.82
			(ST)	3.44	424	540	140	50	0.79
				6.50	585	725	200	70	0.81
				14.94	952	1160	340	130	0.82
3	2+12.5	101	Blend II	1.44	266	182	59	33	1.46
			(ST)	3.44	404	306	94	47	1.32
				6.50	557	409	126	65	1.36
				14.94	916	700	215	110	1.31
3	2+37.5	Lift 9	Blend II	1.44	281	315	85	30	0.89
			(ST)	3.44	415	455	130	50	0.91
				6.50	588	645	190	80	0.91
				14.94	979	1110	335	145	0.88
3	2+37.5	101	Blend II	1.44	269	168	60	35	1.60
			(ST)	3.44	405	260	95	49	1.56
				6.50	557	333	127	67	1.67
				14.94	914	523	218	113	1.75

(Sheet 6 of 6)

Table A10

As Installed Pipe Data--Moisture and Density Measurements

Pipe Trench No.	Bottom of Trench Density pcf	W/C %	Top of Bedding Density pcf	W/C %	Blend II to Top of Pipe Density pcf	W/C %	Top of Blend II Density pcf	W/C %	First Lift of Crushed Stone Density pcf	W/C %	Final Lift of Crushed Stone Density pcf	W/C %
							Lane 1					
1	113.4	7.4	105.3	5.5	114.1	2.9	116.8	2.7	129.3	2.8	147.0	0.8
2	113.7	3.7	115.2	3.8	111.0	3.2	115.4	3.0				
3	--	--	106.3	5.0	112.0	2.8	113.1	2.8				
4	111.6	4.2	106.1	4.2	109.2	3.4	115.4	3.1				
5	110.7	3.9	106.5	4.5	111.8	2.5	113.2	2.6				
6	122.2	5.8	104.4	5.0	109.6	3.6	114.5	3.2				
									First Lift of Blend II (cement stabilized) Density pcf	W/C %	Final Lift of Blend II (cement stabilized) Density pcf	W/C %
							Lane 2					
7	117.3	4.3	108.3	3.7	113.8	2.4	113.0	2.4	122.3	5.1	141.5	3.7
8	115.1	4.4	105.8	4.3	109.1	4.6	111.0	2.7				
9	114.3	3.4	111.4	4.0	116.0	1.8	114.5	2.6				
10	115.6	4.3	103.4	3.5	111.8	3.4	114.2	2.6				
11	114.4	4.2	104.5	3.7	111.5	2.2	112.8	2.7				
12	115.6	3.7	110.2	4.0	114.1	2.8	110.0	2.6				

Table A11

Pre-Traffic and Post-Traffic Surface Measurments of

CBR, Moisture Content, and Density

			Composition				0 Passes			2600 Passes			
			Upper Layer		Lower Layer								
Lane	Item	Station	Material	Thickness in.	Material	Thickness in.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %
1	1	0+12.5	Crushed limestone	36	Heavy clay	36	98	135	1.0	158	146	1.1	0.2
		0+25		36		36	--	--	--	158	146	1.2	0.3
		0+37.5		36		36	105	144	1.1	127	139	1.0	0.2
	2	0+62.5	Crushed limestone	9	Blend II	63	144	147	0.8	146	142	1.3	0.4
		0+75		9		63	--	--	--	167	144	1.0	0.2
		0+87.5		9		63	152	147	0.8	136	142	1.0	0.2
	3	1+12.5	Blend II	72	--	--	24	121	2.2	53	124	2.0	1.6
		1+25		72	--	--	--	--	--	50	128	1.7	0.9
		1+37.5		72	--	--	18	124	2.0	23	127	1.8	1.0
	4	1+62.5	Blend I	9	Blend II	63	31	121	2.1	27	122	2.2	1.3
		1+75		9		63	--	--	--	16	118	2.4	1.1
		1+87.5		9		63	19	116	2.2	26	121	2.3	1.4
	5	2+12.5	Silt	72	--	--	13	108	16.7	67	112	11.9	10.5
		2+25		72	--	--	--	--	--	73	105	12.0	10.6
		2+37.5		72	--	--	9	108	15.2	72	110	10.7	9.1
2	1	0+12.5	Blend I (cement stabilized)	29	Heavy clay	43	150	131	4.7	150+	114	5.4	
		0+25		29		43	--	--	--	150+	116	4.7	
		0+37.5		29		43	147	135	5.1		115	4.9	
	2	0+62.5	Blend II (cement stabilized)	12	Blend II	60	150	142	3.4		118	3.7	
		0+75		12		60	--	--	--	150+	118	4.0	
		0+87.5		12		60	150	141	3.9		116	4.4	
2	3	--	Lean concrete	72	--	--	--	--	--	--	--	--	
		--		72	--	--	--	--	--	--	--	--	
		--		72	--	--	--	--	--	--	--	--	

(Continued)

Table A11 (Concluded)

			Composition				0 Passes			2600 Passes			
			Upper Layer		Lower Layer								
Lane	Item	Station	Material	Thickness in.	Material	Thickness in.	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %
2	4	1+62.5	Blend I (cement stabilized)	12	Blend II	60	147	135	4.3		115	4.7	
		1+75		12		60	--	--	--	150+	116	4.7	
		1+87.5		12		60	150	141	4.1		117	4.4	
	5	2+12.5	Blend II (cement stabilized)	16	Silt	56	143	140	3.4		121	3.8	
		2+25		16		56	--	--	--	150+	119	4.3	
		2+37.5		16		56	150	137	3.6		120	4.5	
3	1	0+12.5	Crushed limestone	29	Heavy clay	43	150	142	1.2	150+	141	1.2	0.3
		0+25		29		43	--	--	--	150+	139	1.2	0.3
		0+37.5		29		43	150	141	1.4	150+	144	1.0	0.4
	2	0+62.5	Crushed limestone	12	Blend II	60	150	137	1.1	150+	142	1.0	0.2
		0+75		12		60	--	--	--	150+	146	1.2	0.5
		0+87.5		12		60	150	145	1.1	150+	143	1.0	0.5
	3	1+12.5	Blend II	72	--	--	94	131	4.1	135	122	3.2	2.4
		1+25		72	--	--	--	--	--	134	124	3.6	5.9
		1+37.5		72	--	--	107	133	3.5	150+	123	3.5	2.5
	4	1+62.5	Blend I	12	Blend II	60	97	127	4.4	82	121	4.1	3.0
		1+75		12		60	--	--	--	123	119	3.5	3.1
		1+87.5		12		60	64	124	3.9	62	118	4.0	3.2
	5	2+12.5	Blend II	16	Silt	56	99	132	3.4	100	125	3.9	2.7
		2+25		16		56	--	--	--	105	124	4.2	3.3
		2+37.5		16		56	91	129	3.1	109	122	3.8	2.9

Table A12

Vertical Soil Deflections as Measured by LVDT Gages

Structural Composition: Upper Layer Material	Upper Layer Thickness in.	Lower Layer Material	Lower Layer Thickness in.	Gage Designation	Depth of Gage ft	Number of Passes	Permanent Set in.	Static Deflection in.	Dynamic Deflection in.	Gage Designation	Depth of Gage ft	Number of passes	Permanent Set in.	Static Deflection in.	Dynamic Deflection in.
						Item 1, Lane 1									
Crushed limestone	36	Heavy clay	36	D1-B	3	1	0.013	0.060	--	D1-A	6	1	0.004	0.023	--
						2	0.013	--	0.053			2	0.004	--	0.023
						3	0.012	--	0.053			3	0.003	--	0.023
						10	0.014	--	0.059			10	0.004	--	0.024
						22	0.014	--	0.062			22	0.004	--	0.026
						40	0.015	--				40	0.005	--	0.026
						41	0.013	0.078	--			41	0.003	0.026	--
						90	0.017	--	0.070			90	0.004	--	0.028
						131	0.014	0.079	--			131	0.004	0.029	--
						133	0.021	--	0.068			133	0.004	--	0.027
						226	0.021	--	0.074			226	0.005	--	0.028
						326	0.021	--	0.073			326	0.005	--	0.028
						327	0.018	0.079	--			327	0.004	0.027	--
						488	0.024	--	0.072			488	0.005	--	0.028
						651	0.020	0.085	--			651	0.004	0.004	--
						652	0.025	--	0.074			652	0.005	--	0.029
						976	0.025	--	0.078			976	0.007	--	0.029
						1100	0.023	--	0.076			1100	0.007	--	0.030
						1300	0.024	--	0.080			1300	0.006	--	0.031
						1301	0.023	0.064	--			1301	0.005	0.032	--
						1951	0.022	0.064	--			1951	0.007	0.032	--
						1952	0.027	--	0.081			1952	0.008	--	0.031
						2275	0.027	--	0.080			2275	0.009	--	0.031
						2599	0.026	0.089	--			2599	0.009	0.033	--
						2600	0.027	--	0.081			2600	0.010	--	0.033
						Item 3, Lane 1									
Blend II	72	--	--	D3-B	3	1	0.010	0.043	--	D3-A	6	1	0.003	0.020	--
						2	0.010	--	0.042			2	0.002	--	0.020
						3	0.012	--	0.037			3	0.002	--	0.021
						10	0.020	--	0.039			10	0.003	--	0.022
						22	0.027	--	0.039			22	0.003	--	0.022
						40	0.032	--	0.039			40	0.004	--	0.021
						41	0.031	0.041	--			41	0.002	0.023	--
						90	0.042	--	0.039			90	0.003	--	0.022
						131	0.045	0.043	--			131	0.002	0.023	--
						133	0.049	--	0.037			133	0.004	--	0.023
						226	0.056	--	0.042			226	0.006	--	0.023

(Continued)

Table A12 (Concluded)

Structural Composition: Upper Layer: Material	Upper Layer: Thickness in.	Lower Layer: Material	Lower Layer: Thickness in.	Gage Designation	Depth of Gage ft	Number of Passes	Permanent Set in.	Static Deflection in.	Dynamic Deflection in.	Gage Designation	Depth of Gage ft	Number of passes	Permanent Set in.	Static Deflection in.	Dynamic Deflection in.
						Item 3, Lane 1 (Continued)									
Blend	73	--	--	D3-B	3	326	0.060	--	0.038			326	0.007	--	0.023
(Continued)	(Con-	(Con-	(Con-	(Con-	(Con-	327	0.058	0.042	--			327	0.005	0.022	--
tinued)	tinued)	tinued)	tinued)	tinued)	tin-	488	0.065	--	0.040			488	0.007	--	0.023
					ued)	651	0.066	0.044	--			651	0.006	0.022	--
						652	0.068	--	0.043			652	0.006	--	0.022
						976	0.073	--	0.043			976	0.009	--	0.024
						1100	0.075	--	0.042			1100	0.009	--	0.023
						1300	0.076	--	0.042			1300	0.007	--	0.024
						1301	0.076	0.044	--			1301	0.008	0.021	--
						1951	0.083	0.045	--			1951	0.009	0.024	--
						1952	0.085	--	0.042			1952	0.010	--	0.024
						2275	0.086	--	0.044			2275	0.009	--	0.025
						2599	0.088	0.045	--			2599	0.009	0.025	--
						2600	0.089	--	0.043			2600	0.010	--	0.025
						Item 5, Lane 1									
Silt	72	--	--	D5-B	3	1	0.014	0.043	--	D5-A	6	1	0.010	0.032	--
						2	0.015	--	0.041			2	0.011	--	0.027
						3	0.017	--	0.038			3	0.010	--	0.028
						10	0.029	--	0.042			10	0.013	--	0.028
						22	0.040	--	0.045			22	0.015	--	0.028
						40	0.049	--	0.046			40	0.016	--	0.028
						41	0.047	0.047	--			41	0.015	0.031	--
						90	0.068	--	0.051			90	0.020	--	0.028
						131	0.076	0.054	--			131	0.021	0.032	--
						133	0.081	--	0.049			133	0.026	--	0.028
						226	0.091	--	0.053			226	0.029	--	0.030
						326	0.096	--	0.056			326	0.031	--	0.030
						327	0.090	0.058	--			327	0.029	0.031	--
						488	0.102	--	0.055			488	0.034	--	0.029
						651	0.112	0.059	--			651	0.035	0.033	--
						652	0.114	--	0.055			652	0.037	--	0.031
						976	0.126	--	0.058			976	0.042	--	0.031
						1100	0.127	--	0.060			1100	0.043	--	0.031
						1300	0.134	--	0.062			1300	0.045	--	0.031
						1301	0.133	0.061	--			1301	0.045	0.031	--
						1951	0.151	0.066	--			1951	0.053	0.032	--
						1952	0.154	--	0.060			1952	0.055	--	0.031
						2275	0.157	--	0.063			2275	0.055	--	0.032
						2599	0.165	0.066	--			2599	0.059	0.033	--
						2600	0.167	--	0.062			2600	0.061	--	0.032

Table A13

Vertical Stress Measurements from WES Soil Pressure Cells

Structural Composition: Upper Layer Material	Upper Layer Thickness in.	Lower Layer Material	Lower Layer Thickness in.	Gage Designation	Depth of Gage ft	Number of Passes	σ Unloaded psi	Δσ Static Load psi	σ Static Load psi	Δσ Dynamic Load psi	σ Dynamic Load psi
					Item 1, Lane 1						
Crushed limestone	36	Heavy clay	36	W1-B	2	1	10.20	32.73	42.93	--	--
						2	14.20	--	--	30.49	44.69
						3	14.21	--	--	31.94	45.45
						10	14.10	--	--	32.27	46.37
						22	13.76	--	--	34.32	48.08
						40	13.74	--	--	35.07	48.81
						41	12.61	32.61	45.22	--	--
						90	13.28	--	--	36.64	49.92
						131	12.11	33.47	45.58	--	--
						133	13.01	--	--	36.62	49.63
						226	12.17	--	--	35.96	48.13
						326	11.66	--	--	34.59	46.25
						327	11.00	32.42	34.42	--	--
						488	10.99	--	--	34.51	45.50
						651	10.14	33.73	43.87	--	--
						652	10.46	--	--	34.60	45.06
						976	9.71	--	--	34.86	44.57
						1100	9.91	--	--	33.75	43.66
						1300	10.18	--	--	33.82	44.00
						1301	9.61	31.01	40.62	--	--
						1951	9.70	31.72	41.42	--	--
						1952	9.98	--	--	34.76	44.74
						2275	10.24	--	--	33.87	44.11
						2599	10.21	30.90	41.11	--	--
						2600	10.19	--	--	35.85	46.04
Crushed limestone	36	Heavy clay	36	W1-C	1	1	39.38	69.53	108.91	--	--
						2	41.11	--	--	77.25	118.36
						3	40.96	--	--	80.71	121.65
						10	40.54	--	--	85.97	126.51
						22	38.10	--	--	94.00	132.10
						40	33.40	--	--	95.25	128.65
						41	31.34	97.98	128.98	--	--
						90	19.40	--	--	99.54	118.94
						131	14.14	92.90	107.04	--	--
						133	12.82	--	--	94.60	107.42
						226	11.21	--	--	98.27	109.48
						326	10.54	--	--	102.47	113.01
						327	9.69	89.62	99.31	--	--
						488	9.13	--	--	109.72	118.85
						651	8.60	97.57	106.17	--	--
						652	8.87	--	--	111.16	120.03
						976	8.36	--	--	114.19	122.55
						1100	7.99	--	--	112.96	120.95
						1300	7.04	--	--	113.24	120.28
						1301	7.30	112.63	119.93	--	--
						1951	6.62	106.60	113.22	--	--
						1952	6.75	--	--	113.90	120.65
						2275	6.58	--	--	117.28	123.86
						2599	6.35	105.72	112.07	--	--
						2600	6.15	--	--	113.71	119.86
					Item 3, Lane 1						
Blend II	72	--	--	W3-A	3	1	33.10	29.40	62.50	--	--
						2	35.27	--	--	28.84	64.11
						3	35.25	--	--	26.05	61.30
						10	34.92	--	--	26.48	61.40
						22	34.92	--	--	25.42	60.34
						40	34.97	--	--	24.42	59.39
						41	39.69	27.29	66.98	--	--
						90	41.16	--	--	25.04	66.20
						131	42.43	25.38	67.81	--	--
						133	43.94	--	--	23.00	66.94
						226	44.24	--	--	25.08	69.32
						326	45.13	--	--	24.51	69.64
						327	45.34	25.69		--	--
						488	46.69	--	--	25.18	71.03
						650	49.13	25.64		--	--

(Continued)

(Sheet 1 of 3)

Table A13 (Continued)

Structural Composition					Depth			Δσ	σ	Δσ	σ
Upper Layer		Lower Layer		Gage	of	Number	σ	Static	Static	Dynamic	Dynamic
Material	Thickness in.	Material	Thickness in.	Designation	Gage ft	of Passes	Unloaded psi	Load psi	Load psi	Load psi	Load psi
					Item 3, Lane 1 (Continued)						
Blend II	72	--	--	W3-A	3	651	49.66	--	--	24.69	74.77
(Continued)	(Continued)	(Continued)	(Continued)	(Continued)	(Continued)	976	51.87	--	--	25.62	77.49
						1100	54.15	--	--	25.62	79.77
						1300	57.84	--	--	26.37	84.21
						1301	57.94	26.08	84.02	--	--
						1951	61.61	26.68	88.29	--	--
						1952	62.11	--	--	26.30	88.41
						2275	62.21	--	--	25.66	87.87
						2599	63.15	26.16	89.31	--	--
						2600	63.35	--	--	26.35	89.70
Blend II	72	--	--	W3-B	2	1	9.32	35.01	44.33	--	--
						2	9.80	--	--	45.16	54.96
						3	9.97	--	--	40.60	50.57
						10	10.14	--	--	45.25	55.39
						22	10.47	--	--	44.97	55.44
						40	10.71	--	--	43.15	53.86
						41	10.47	44.57	55.04	--	--
						90	11.14	--	--	43.57	54.71
						131	10.64	44.31	54.95	--	--
						133	11.33	--	--	41.23	52.56
						226	11.41	--	--	44.05	55.46
						326	11.53	--	--	43.24	54.77
						327	11.19	44.73		--	--
						488	11.64	--	--	44.58	56.22
						650	11.77	46.04	57.81	--	--
						651	12.02	--	--	45.15	57.17
						976	11.98	--	--	45.52	57.50
						1100	11.93	--	--	46.62	58.55
						1300	12.35	--	--	47.37	59.72
						1301	12.18	44.85	57.03	--	--
						1951	12.69	46.74	59.43	--	--
						1952	12.93	--	--	46.81	59.74
						2275	12.76	--	--	47.63	60.39
						2599	12.65	32.03	44.68	--	--
						2600	12.43	--	--	46.23	58.66
Blend II	72	--	--	W3-C	1	1	8.00	98.06	106.06	--	--
						2	11.49	--	--	106.87	118.36
						3	11.57	--	--	113.56	125.13
						10	14.43	--	--	113.12	127.55
						22	16.87	--	--	109.05	125.92
						40	22.99	--	--	127.52	150.51
						41	22.15	109.46	131.61	--	--
						90	9.72	--	--	135.88	145.60
						131	7.41	111.22	118.63	--	--
						133	8.22	--	--	138.12	146.34
						226	8.52	--	--	140.45	148.97
						326	8.39	--	--	143.37	151.76
						327	7.11	123.59	130.70	--	--
						488	7.68	--	--	132.29	139.97
						650	7.89	124.32	132.21	--	--
						651	8.17	--	--	134.52	142.69
						976	8.28	--	--	141.84	150.12
						1100	8.44	--	--	146.07	154.51
						1300	8.51	--	--	143.39	151.90
						1301	8.83	124.35	133.18	--	--
						1951	7.90	145.68	153.58	--	--
						1952	8.15	--	--	137.58	145.73
						2275	6.21	--	--	134.65	140.86
						2599	5.28	133.45	138.73	--	--
						2600	5.38	--	--	140.11	145.49
					Item 5, Lane 1						
Silt				W5-A	3	1	7.53	24.47	32.00	--	--
						2	9.76	--	--	24.44	34.20
						3	9.66	--	--	22.26	31.92
						10	9.34	--	--	23.15	32.49
						22	9.03	--	--	22.94	31.97
						40	8.82	--	--	22.33	31.15

(Continued)

Table A13 (Concluded)

Structural Composition											
Upper Layer		Lower Layer									
Material	Thickness in.	Material	Thickness in.	Gage Desig- nation	Depth of Gage ft	Number of Passes	σ Unloaded psi	Δσ Static Load psi	σ Static Load psi	Δσ Dynamic Load psi	σ Dynamic Load psi
				Item 5, Lane 1 (Continued)							
Silt				W5-A	3	41	8.78	24.5	33.4	--	--
(Continued)				(Con-	(Con-	90	9.11	--	--	22.54	31.65
						131	8.35	23.90	32.25	--	--
						133	9.11	--	--	20.10	29.21
						226	9.30	--	--	22.66	31.96
						326	9.36	--	--	22.12	31.48
						327	9.16	22.82	31.98	--	--
						488	10.00	--	--	21.80	31.80
						650	10.58	23.64	34.22	--	--
						651	11.17	--	--	21.07	32.24
						976	11.86	--	--	22.49	34.35
						1100	14.30	--	--	21.81	36.11
						1300	22.01	--	--	23.04	45.05
						1301	25.39	24.50	49.89	--	--
						1951	70.80	30.00	100.80	--	--
						1952	73.86	--	--	23.71	97.57
						2275	119.36	--	--	25.00	144.36
						2599	127.45	--	--	--	--
						2600	98.96	--	--	18.45	117.41
Silt	72	--	--	W5-B	2	1	8.31	47.52	58.45	--	--
						2	11.53	--	--	56.45	71.62
						3	11.73	--	--	55.45	70.89
						10	13.10	--	--	58.31	75.55
						22	13.75	--	--	58.03	76.12
						40	14.06	--	--	59.75	78.25
						41	14.61	59.29	78.52	--	--
						90	15.61	--	--	60.50	81.04
						131	14.74	60.59	79.98	--	--
						133	15.62	--	--	56.36	76.91
						226	15.88	--	--	62.10	83.00
						326	15.53	--	--	61.67	82.11
						327	15.39	57.31	77.56	--	--
						488	15.80	--	--	57.87	78.66
						650	15.43	59.70	80.00	--	--
						651	16.08	--	--	57.19	78.35
						976	15.37	--	--	58.85	79.08
						1100	15.06	--	--	59.98	79.80
						1300	15.15	--	--	59.23	79.17
						1301	14.83	60.58	80.09	--	--
						1951	14.30	59.68	78.50	--	--
						1952	14.98	--	--	57.64	77.35
						2275	14.52	--	--	59.74	78.85
						2599	14.92	60.13	79.76	--	--
						2600	15.20	--	--	59.27	79.27
Silt	72	--	--	W5-C	1	1	0.32	66.89	67.21	--	--
						2	0.24	--	--	71.54	71.78
						3	0.49	--	--	81.42	81.91
						10	1.32	--	--	76.78	78.10
						22	1.58	--	--	77.98	79.56
						40	1.88	--	--	77.53	79.41
						41	0.44	74.78	75.22	--	--
						90	0.43	--	--	78.51	78.94
						131	-0.03	75.76	75.79	--	--
						133	0.98	--	--	85.43	86.41
						226	0.84	--	--	81.17	81.97
						326	0.52	--	--	79.56	80.08
						327	-0.62	81.60	82.24	--	--
						488	-0.49	--	--	85.45	85.94
						650	0.67	81.95	82.62	--	--
						651	1.12	--	--	84.87	85.99
						976	1.14	--	--	82.65	83.79
						1100	1.46	--	--	82.21	83.67
						1300	1.52	--	--	73.59	75.11
						1301	1.05	75.24	76.29	--	--
						1951	1.79	75.11	76.90	--	--
						1952	2.04	--	--	78.55	80.59
						22.75	1.91	--	--	72.24	74.15
						2599	2.32	35.31	37.63	--	--
						2600	2.18	--	--	61.64	63.82

(Sheet 3 of 3)

Table A14

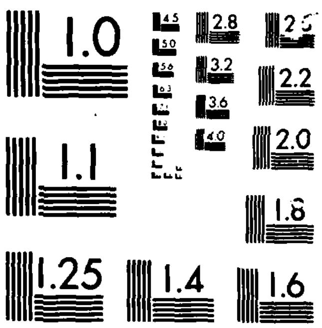
Pore Pressure Measurements Obtained with CEC Type 4-312 Transducers

Structural Composition: Upper Layer Material	Upper Layer Thickness in.	Lower Layer Material	Lower Layer Thickness in.	Depth of Gage ft	Number of Passes	PP1-A U_w Unloaded psi	PP1-A Δ_{uw} Static Load psi	PP1-A U_w Static Load psi	PP1-A Δ_{uw} Dynamic Load psi	PP1-A U_w Dynamic Load psi	PP1-B U_w Unloaded psi	PP1-B Δ_{uw} Static Load psi	PP1-B U_w Static Load psi	PP1-B Δ_{uw} Dynamic Load psi	PP1-B U_w Dynamic Load psi
						Item 1, Lane 1									
Crushed limestone	36	Heavy clay	36	11.26	1	0.875	0.031	0.906	--	--	0.917	0.061	0.978	--	--
					2	0.865	--	--	0.508	1.373	0.864	--	--	0.670	1.534
					3	0.866	--	--	0.544	1.410	0.859	--	--	0.670	1.529
					10	0.862	--	--	0.525	1.387	0.827	--	--	0.600	1.427
					22	0.867	--	--	0.562	1.429	0.822	--	--	0.670	1.492
					40	0.856	--	--	0.544	1.400	0.797	--	--	0.635	1.432
					41	0.855	0.044	0.899	--	--	0.897	0.071	0.968	--	--
					90	0.837	--	--	0.523	1.360	0.888	--	--	0.642	1.530
					131	0.828	0.068	0.896	--	--	0.837	0.048	0.885	--	--
					133	0.758	--	--	0.578	1.336	0.742	--	--	0.711	1.453
					226	0.837	--	--	0.524	1.361	0.808	--	--	0.604	1.412
					326	0.833	--	--	0.523	1.356	0.816	--	--	0.640	1.456
					327	0.829	0.058	0.887	--	--	0.905	0.085	0.990	--	--
					488	0.816	--	--	0.541	1.357	0.909	--	--	0.673	1.582
					650	0.831	0.056	0.887	--	--	0.908	0.062	0.970	--	--
					651	0.828	--	--	0.676	1.504	0.917	--	--	0.675	1.593
					976	0.846	--	--	0.545	1.391	0.827	--	--	0.640	1.467
					1100	0.791	--	--	0.581	1.372	0.797	--	--	0.640	1.437
					1300	0.798	--	--	0.507	1.305	0.812	--	--	0.641	1.453
					1301	0.802	0.057	0.859	--	--	0.829	0.017	0.846	--	--
					1951	0.814	0.083	0.897	--	--	0.795	0.084	0.979	--	--
					1952	0.817	--	--	0.515	1.332	0.794	--	--	0.576	1.370
					2275	0.832	--	--	0.444	1.276	0.749	--	--	0.515	1.264
					2599	0.806	0.066	0.872	--	--	0.733	0.079	0.812	--	--
					2600	0.797	--	--	0.507	1.304	0.727	--	--	0.581	1.308
						Item 3, Lane 1									
Blend II	72	--	--	1_.01	1	BAD CELL					0.496	0.092	0.588	--	--
					2						0.402	--	--	0.276	0.678
					3						0.391	--	--	0.311	0.702
					10						0.388	--	--	0.345	0.733
					22						0.372	--	--	0.346	0.718
					40						0.368	--	--	0.346	0.714
					41						0.439	0.193	0.632	--	--
					90						0.434	--	--	0.379	0.813
					131						0.395	0.097	0.492	--	--
					133						0.409	--	--	0.347	0.756
					226						0.322	--	--	0.347	0.669
					326						0.365	--	--	0.347	0.712

(Continued)

AD-A167 671 CORRELATION OF NONDESTRUCTIVE PAVEMENT EVALUATION TEST RESULTS WITH RESUL..(U) ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS GEOTE.. D R ALEXANDER 3/5

UNCLASSIFIED FEB 86 WES/TR/GL-86-1-VOL-2 F/G 14/2 NL



MICROCOP CHART

Table A14 (Concluded)

Structural Composition						PP1-A					PP1-B				
Upper Layer		Lower Layer													
Material	Thickness in.	Material	Thickness in.	Depth of Gage ft	Number of Passes	U_w Unloaded psi	Δ_{uw} Static Load psi	U_w Static Load psi	Δ_{uw} Dynamic Load psi	U_w Dynamic Load psi	U_w Unloaded psi	Δ_{uw} Static Load psi	U_w Static Load psi	Δ_{uw} Dynamic Load psi	U_w Dynamic Load psi
						Item 3, Lane 1 (Continued)									
					327						0.438	0.110	0.548	--	--
					488		BAD CELL				0.413	--	--	0.312	0.725
					650						0.444	0.100	0.544	--	--
					651						0.439	--	--	0.346	0.785
					976						0.407	--	--	0.346	0.753
					1100						0.412	--	--	0.380	0.792
					1300						0.387	--	--	0.314	0.701
					1301						0.345	0.140	0.485	--	--
					1951						0.381	0.123	0.504	--	--
					1952						0.371	--	--	0.321	0.692
					2275						0.405	--	--	0.356	
					2599						0.368	0.126	0.761	--	--
					2600						0.357	--	--	0.312	0.669
						Item 5, Lane 1									
Silt	72	--	--	13.3	1	1.665	0.100	1.765	--	--	1.601	0.054		--	--
					2	1.647	--	--	0.052	1.699	1.560	--	--	0.109	
					3	1.633	--	--	0.863	2.496	1.560	--	--	0.073	
					10	1.635	--	--	0.069	1.704	1.553	--	--	0.109	
					22	1.637	--	--	0.069	1.706	1.549	--	--	0.109	
					40	1.630	--	--	0.083	1.713	1.531	--	--	0.109	
					41	1.659	0.093	1.752	--	--	1.551	0.077		--	--
					90	1.695	--	--	0.121	1.816	1.547	--	--	0.110	
					131	1.607	0.061	1.668	--	--	1.579	0.015		--	--
					133	1.592	--	--	0.069	1.661	1.494	--	--	0.109	
					226	1.595	--	--	0.068	1.663	1.487	--	--	0.145	
					326	1.597	--	--	0.086	1.683	1.515	--	--	0.109	
					327	1.629	0.055		--	--	1.578	0.063		--	--
					488	1.613	--	--	0.069	1.684	1.574	--	--	0.109	
					650	1.602	0.065	1.667	--	--	1.545	0.091		--	--
					651	1.599	--	--	0.069	1.668	1.549	--	--	0.109	
					976	1.605	--	--	0.105	1.710	1.542	--	--	0.110	
					1100	1.592	--	--	0.103	1.695	1.520	--	--	0.109	
					1300	1.556	--	--	0.103	1.659	1.486	--	--	0.145	
					1301	1.512	0.063	1.575	--	--	1.448	0.079		--	--
					1951	1.492	0.075	1.567	--	--	1.471	0.089		--	--
					1952	1.481	--	--	0.078	1.559	1.470	--	--	0.083	
					2275	1.489	--	--	0.080	1.569	1.427	--	--	0.093	
					2599	1.514	0.074	1.588	--	--	1.417	0.066		--	--
					2600	1.500	--	--	0.078	1.578	1.402	--	--	0.088	

Table A15

Surface Defelction Data as Determined from "CAP and PIN" Gage Readings

			Composition								Deflection from 0 Passes		
			Upper Layer		Lower Layer								
Item	Lane	Station ft	Material	Thickness in.	Material	Thickness in.	Length of Pin ft	Number of Passes	Cap Elevation in.	Pin Elevation in.	Permanent Deflection in.	Total Deflection in.	Elastic Deflection in.
3	1	1+11	Blend II	72	--	--	6	0	12.27	12.02	--	--	--
								1	12.20	11.96	0.07	0.06	-0.01
								7	12.05	11.79	0.22	0.23	0.01
								40	11.92	11.63	0.35	0.39	0.04
								130	11.67	11.35	0.60	0.67	0.07
								326	11.50	11.20	0.77	0.82	0.05
								650	11.50	11.20	0.77	0.82	0.05
								1100	11.28	10.95	0.99	1.07	0.08
								1300	11.37	11.03	0.90	0.99	0.09
								1950*	11.47	11.12	0.80	0.90	0.10
								2600	11.22	10.95	1.05	1.07	0.02
3	1	1+12	Blend II	72	--	--	4	0	12.22	11.97	--	--	--
								1	12.06	11.75	0.16	0.22	0.06
								7	11.99	11.50	0.23	0.47	0.24
								40	11.70	11.30	0.52	0.67	0.15
								130	11.58	11.28	0.64	0.69	0.05
								326	11.40	11.13	0.82	0.84	0.02
								650	11.40	11.10	0.82	0.87	0.05
								1100	11.20	10.82	1.02	1.15	0.13
								1300	11.25	10.90	0.97	1.07	0.10
								1950*	11.35	10.90	0.87	1.07	0.20
								2600	11.10	10.63	1.12	1.34	0.22
3	1	1+38	Blend II	72	--	--	4	0	12.80	12.59	--	--	--
								1	12.62	12.45	0.18	0.14	-0.04
								7	12.39	12.08	0.41	0.51	0.10
								40	12.03	11.74	0.77	0.85	0.08
								130	12.09	11.78	0.71	0.81	0.10
								326	11.80	11.41	1.00	1.18	0.18
								650	11.72	11.28	1.08	1.31	0.23
								1100	11.40	10.68	1.40	1.91	0.51
								1300	--	--	--	--	--
								1950	--	--	--	--	--
								2600	--	--	--	--	--
3	1	1+39	Blend II	72	--	--	6	0	12.70	12.48	--	--	--
								1	12.70	12.49	0.00	-0.01	-0.01
								7	12.59	12.31	0.11	0.17	0.06
								40	12.30	12.03	0.40	0.45	0.05
								130	12.18	11.92	0.52	0.56	0.04
								326	12.08	11.80	0.62	0.68	0.06
								650	12.03	11.76	0.67	0.72	0.05
								1100	11.78	11.40	0.92	1.08	0.16
								1300	11.62	11.38	1.08	1.10	-0.02
								1950	11.49	11.23	1.21	1.25	0.04
								2600	11.20	10.91	1.50	1.57	0.07
4	1	1+61	Blend I	9	Blend II	63	6	0	13.45	13.20	--	--	--
								1	13.35	13.11	0.10	0.09	-0.01
								7	13.12	12.88	0.33	0.32	-0.01
								40	12.80	12.50	0.65	0.70	0.05
								130	12.79	12.50	0.66	0.70	0.04
								326	12.20	11.85	1.25	1.35	0.10
								650	10.98	10.52	2.47	2.68	0.21
								1100	8.60	8.08	4.85	5.12	0.27
								1300	8.89	8.18	4.56	5.02	0.46
								1950	8.56	7.70	4.89	5.50	0.61
								2600	8.30	7.42	5.15	5.78	0.63
4	1	1+62	Blend I	9	Blend II	63	4	0	13.52	13.28	--	--	--
								1	13.27	13.00	0.25	0.28	0.03
								7	13.05	12.75	0.47	0.53	0.06
								40	12.70	12.40	0.82	0.88	0.06
								130	12.79	12.48	0.73	0.80	0.07
								326	12.09	11.77	1.43	1.51	0.08
								650	11.02	10.68	2.50	2.60	0.10
								1100	8.62	8.10	4.90	5.18	0.28
								1300	8.70	8.23	4.82	5.05	0.23
								1950	8.30	7.83	5.22	5.45	0.23
								2600	8.05	7.52	5.47	5.76	0.29

(Continued)

* Rod 0.10 inch off zero after completion of readings.

(Sheet 1 of 3)

Table A15 (Continued)

			Composition								Deflection from 0 Passes		
			Upper Layer		Lower Layer								
Item	Lane	Station ft	Material	Thickness in.	Material	Thickness in.	Length of Pin ft	Number of Passes	Cap Elevation in.	Pin Elevation in.	Permanent Deflection in.	Total Deflection in.	Elastic Deflection in.
4	1	1+88	Blend I	9	Blend II	63	4	0	14.10	13.88	--	--	--
								1	13.89	13.60	0.21	0.28	0.07
								7	13.58	13.29	0.52	0.59	0.07
								40	12.73	12.40	1.37	1.48	0.11
								130	12.80	12.49	1.30	1.39	0.09
								326	12.30	11.86	1.80	2.02	0.22
								650	11.83	11.37	2.27	2.51	0.24
								1100	11.38	10.90	2.72	2.98	0.26
								1300	11.42	10.89	2.68	2.99	0.31
								1950	11.53	10.89	2.57	2.99	0.42
								2600	11.50	10.58	2.60	3.30	0.70
4	1	1+89	Blend I	9	Blend II	63	6	0	13.65	13.40	--	--	--
								1	13.61	13.41	0.04	-0.01	
								7	13.38	13.10	0.27	0.30	0.03
								40	12.40	12.10	1.25	1.30	0.05
								130	12.40	12.10	1.25	1.30	0.05
								326	12.03	11.70	1.62	1.70	0.08
								650	11.63	11.30	2.02	2.10	0.08
								1100	11.04	10.68	2.61	2.72	0.11
								1300	11.03	10.60	2.62	2.80	0.18
								1950	11.20	10.68	2.45	2.72	0.27
								2600	10.65	9.97	3.00	3.43	0.43
5	1	2+11	Silt	72	--	--	6	0	12.70	12.31	--	--	--
								1	12.78	12.46	-0.08	-0.15	
								7	12.40	12.12	0.30	0.19	-0.11
								40	11.90	11.58	0.80	0.73	-0.07
								130	11.96	11.60	0.74	0.71	-0.03
								326	11.80	11.50	0.90	0.81	-0.09
								650	11.79	11.48	0.91	0.83	-0.08
								1100	11.70	11.30	1.00	1.01	0.01
								1300	11.70	11.38	1.00	0.93	-0.07
								1950	11.84	11.50	0.86	0.81	-0.05
								2600	11.68	11.30	1.02	1.01	-0.01
5	1	2+12	Silt	72	--	--	4	0	12.67	12.38	--	--	--
								1	12.47	12.10	0.20	0.18	-0.02
								7	12.25	11.81	0.42	0.57	0.15
								40	11.80	11.43	0.87	0.95	0.08
								130	11.86	11.50	0.81	0.88	0.07
								326	11.78	11.42	0.89	0.96	0.07
								650	11.76	11.39	0.91	0.99	0.08
								1100	11.50	11.14	1.17	1.24	0.07
								1300	11.54	11.22	1.13	1.16	0.03
								1950	11.68	11.34	0.99	1.04	0.05
								2600	11.28	11.10	1.39	1.28	-0.11
5	1	2+38	Silt	72	--	--	4	0	12.96	12.70	--	--	--
								1	12.81	12.47	0.15	0.23	0.08
								7	12.60	12.21	0.36	0.49	0.13
								40	12.20	11.95	0.76	0.75	-0.01
								130	12.35	12.00	0.61	0.70	0.09
								326	12.20	11.81	0.76	0.89	0.13
								650	12.12	11.77	0.84	0.93	0.09
								1100	11.80	11.45	1.16	1.25	0.09
								1300	11.88	11.50	1.08	1.20	0.12
								1950	11.94	11.61	1.02	1.09	0.07
								2600	11.72	11.35	1.24	1.35	0.11
5	1	2+39	Silt	72	--	--	6	0	13.01	12.80	--	--	--
								1	12.90	12.60	0.11	0.20	0.09
								7	12.69	12.32	0.32	0.48	0.16
								40	12.22	12.00	0.79	0.80	0.01
								130	12.48	12.10	0.53	0.70	0.17
								326	12.28	11.93	0.73	0.87	0.14
								650	12.20	11.84	0.81	0.96	0.15
								1100	11.90	11.60	1.11	1.20	0.09
								1300	11.98	11.61	1.03	1.19	0.16
								1950	12.00	11.64	1.01	1.16	0.15
								2600	11.55	11.20	1.46	1.60	0.14
2	3	0+88	Crushed limestone	12	Blend II	60	4	0	11.45	11.20	--	--	--
								7	11.19	10.90	0.26	0.30	0.04
								32	10.98	10.71	0.47	0.49	0.02
								123	10.87	10.58	0.58	0.62	0.04
								318	10.82	10.52	0.63	0.68	0.05

(Continued)

Table A15 (Concluded)

			Composition							Deflection from 0 Passes			
			Upper Layer		Lower Layer								
Item	Lane	Station ft	Material	Thickness in.	Material	Thickness in.	Length of Pin ft	Number of Passes	Cap Elevation in.	Pin Elevation in.	Permanent Deflection in.	Total Deflection in.	Elastic Deflection in.
2	3	0+88	Crushed	12	Blend II	60	4	326	10.78	10.45	0.67	0.75	0.08
								643	10.75	10.48	0.70	0.72	0.02
								650	10.75	10.44	0.70	0.76	0.06
								1300	10.71	10.41	0.74	0.79	0.05
								1307	10.70	10.44	0.75	0.76	0.01
								2600	10.70	10.40	0.75	0.80	0.05
3*	3	1+12	Blend II (Optimum)	6	Blend II	66	4	0	13.12	12.89	--	--	--
								7	12.72	12.44	0.40	0.45	0.05
								32	12.23	11.93	0.89	0.96	0.07
								123	12.10	11.78	1.02	1.11	0.09
								318	12.00	11.73	1.12	1.16	0.04
								326	12.00	11.73	1.12	1.16	0.04
								643	11.90	11.60	1.22	1.29	0.07
								650	11.83	11.60	1.29	1.29	0.00
								1300	11.82	11.64	1.30	1.25	-0.05
								1307	11.82	11.53	1.30	1.36	0.06
								2600	11.77	11.49	1.35	1.40	0.05
3*	3	1+38	Blend II (Optimum)	6	Blend II	66	4	0	13.70	13.45	--	--	--
								7	13.22	12.91	0.48	0.54	0.06
								32	12.83	12.52	0.87	0.93	0.06
								123	12.72	12.27	0.98	1.18	0.20
								318	12.68	12.38	1.02	1.07	0.05
								326	12.68	12.32	1.02	1.13	0.11
								643	12.60	12.30	1.10	1.15	0.05
								650	12.60	12.30	1.10	1.15	0.05
								1300	12.55	12.26	1.15	1.19	0.04
								1307	12.54	12.24	1.16	1.21	0.05
								2600	12.52	12.25	1.18	1.20	0.02
4**	3	1+62	Blend I (Optimum)	12	Blend II	60	4	0	14.00	13.74	--	--	--
								7	13.62	13.33	0.38	0.41	0.03
								32	13.31	13.05	0.69	0.69	0.00
								123	13.22	12.89	0.78	0.85	0.07
								318	13.20	12.90	0.80	0.84	0.04
								326	13.16	12.90	0.84	0.84	0.00
								643	13.05	12.80	0.95	0.94	-0.01
								650	13.10	12.80	0.90	0.94	0.04
								1300	13.02	12.75	0.98	0.99	0.01
								1307	12.96	12.67	1.04	1.07	0.03
								2600	13.04	12.75	0.96	0.99	0.03
4**	3	1+88	Blend I (Optimum)	12	Blend II	60	4	0	13.80	13.54	--	--	--
								7	13.38	13.08	0.42	0.46	0.04
								32	13.09	12.77	0.71	0.77	0.06
								123	12.96	12.62	0.84	0.92	0.08
								318	12.95	12.61	0.85	0.93	0.08
								326	12.90	12.61	0.90	0.93	0.03
								643	12.80	12.52	1.00	1.02	0.02
								650	12.70	12.50	1.10	1.04	-0.06
								1300	12.80	12.60	1.00	0.94	-0.06
								1307	12.78	12.45	1.02	1.09	0.07
								2600	12.81	12.50	0.99	1.04	0.05
5**	3	2+12	Blend II (Optimum)	16	Silt	56	4	0	13.75	13.48	--	--	--
								7	13.57	13.28	0.18	0.20	0.02
								32	13.27	12.93	0.48	0.55	0.07
								123	13.10	12.78	0.65	0.70	0.05
								318	13.08	12.78	0.67	0.70	0.03
								326	13.08	12.80	0.67	0.68	0.01
								643	13.00	12.70	0.75	0.78	0.03
								650	13.00	12.70	0.75	0.78	0.03
								1300	13.02	12.71	0.73	0.77	0.04
								1307	12.82	12.38	0.93	1.10	0.17
								2600	12.90	12.61	0.85	0.87	0.02
5**	3	2+38	Blend II (Optimum)	16	Silt	56	4	0	14.10	13.86	--	--	--
								7	13.81	13.50	0.29	0.36	0.07
								32	13.48	13.16	0.62	0.70	0.08
								123	13.27	12.96	0.83	0.90	0.07
								318	13.24	12.92	0.86	0.94	0.08
								326	13.21	12.92	0.89	0.94	0.05
								643	13.10	12.80	1.00	1.06	0.06
								650	13.10	12.80	1.00	1.06	0.06
								1300	13.18	12.90	0.92	0.96	0.04
								1307	12.81	12.42	1.29	1.44	0.15
								2600	13.08	12.77	1.02	1.09	0.07

* Double bituminous surface treatment.
** Single bituminous surface treatment.

(Sheet 3 of 3)

Table A16

Nondestructive Vibratory Test Results--During Traffic

WES 16-Kip Vibrator

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	1	0+12.5	Crushed limestone	36	Heavy clay	36	0	920	9,820	7.8	5.0	3.0	2.3
							40	840	9,966	9.5	6.8	3.9	2.8
							130	650	10,088	11.2	8.0	4.6	3.2
							326	690	10,263	11.2	8.0	4.6	3.2
							650	670	10,143	10.9	7.6	4.6	3.1
							1100	580	10,121	12.6	8.9	5.1	3.4
							1300	590	10,212	12.3	8.7	4.8	3.3
							1950	580	10,246	12.1	8.4	4.5	3.2
							2600	590	10,136	12.5	9.0	4.7	3.3
1	1	0+25	Crushed limestone	36	Heavy clay	36	0	--	--	--	--	--	--
							40	800	9,898	9.7	7.5	4.2	3.0
							130	710	10,245	10.9	7.8	4.5	3.2
							326	720	10,342	11.0	8.1	4.6	3.3
							650	730	10,292	10.6	8.3	4.7	3.2
							1100	550	10,016	12.7	9.5	4.6	3.6
							1300	600	10,174	11.9	9.3	5.0	3.5
							1950	620	10,131	12.1	8.8	0.1	3.4
							2600	630	10,052	11.8	8.7	4.8	3.4

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	1	0+37.5	Crushed limestone	36	Heavy clay	36	0	680	9,960	10.0	6.2	3.4	2.3
							40	780	10,101	10.0	7.1	3.9	2.8
							130	680	10,139	10.9	7.4	4.1	2.9
							326	660	10,232	11.0	7.4	3.9	2.8
							650	660	10,265	11.1	8.0	4.5	3.1
							1100	560	10,138	12.4	9.1	4.9	3.2
							1300	580	10,300	12.2	9.2	4.4	3.0
							1950	610	10,230	11.6	7.9	4.6	3.1
							2600	570	10,058	12.6	9.0	4.7	3.3
1	2	0+62.5	Crushed limestone	9	Blend II	63	0	820	9,939	8.3	4.9	2.6	1.8
							40	750	10,224	9.8	5.2	2.5	1.9
							130	770	10,654	10.5	5.8	2.6	2.0
							326	750	10,317	9.9	5.0	2.6	1.9
							650	730	10,420	10.1	5.5	2.7	2.0
							1100	720	10,069	10.0	6.1	3.2	2.3
							1300	750	10,633	10.1	5.8	2.7	2.1
							1950	710	10,974	11.1	6.3	3.3	2.5
							2600	700	10,656	10.8	6.2	3.3	2.5
1	2	0+75	Crushed limestone	9	Blend II	63	0	--	--	--	--	--	--
							40	780	9,895	9.7	6.3	3.1	2.0

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	2	0+75 (Cont'd)					130	740	10,520	10.5	6.4	3.7	2.6
							326	750	10,001	9.9	5.9	3.6	2.4
							650	700	10,092	10.2	6.0	3.7	2.1
							1100	680	10,394	10.8	6.9	4.5	2.7
							1300	710	10,197	10.4	7.3	4.3	2.5
							1950	680	10,272	11.0	6.9	4.4	3.1
							2600	620	10,516	12.1	8.2	4.3	2.0
1	2	0+87.5	Crushed limestone	9	Blend II	63	0	630	10,003	10.9	7.0	2.5	1.5
							40	570	10,092	13.5	7.0	3.2	2.3
							130	580	10,229	12.7	7.8	4.0	2.8
							326	540	9,994	13.5	8.1	3.1	2.2
							650	550	10,135	13.0	8.0	4.0	2.8
							1100	510	10,021	14.7	7.9	3.3	2.9
							1300	510	10,098	14.6	8.6	3.6	2.7
							1950	560	10,101	13.0	7.7	4.3	3.1
							2600	510	10,032	15.2	7.9	4.0	3.0
1	3	1+12.5	Blend II	72	--	--	0	670	9,892	10.6	5.1	2.3	1.8
							40	700	10,282	11.3	5.7	2.9	2.2
							130	720	10,078	10.4	5.2	3.0	2.1
							360	680	10,003	11.1	5.4	2.9	2.2

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	3	1+12.5 (Cont'd)					650	650	10,257	11.4	5.8	3.1	2.3
							1100	620	10,112	12.1	5.3	3.1	2.3
							1300	680	10,168	10.6	5.4	3.0	2.2
							1950	660	10,307	11.6	6.1	3.2	2.4
							2600	630	10,037	11.8	5.6	3.2	2.3
1	3	1+25	Blend II	72	--	--	0	--	--	--	--	--	--
							40	690	10,012	11.1	5.4	2.8	2.1
							130	670	10,285	11.1	5.6	3.0	2.2
							326	680	10,069	10.7	5.6	2.9	2.2
							650	670	10,266	11.1	6.0	3.1	2.3
							1100	600	10,042	12.1	6.0	3.4	2.4
							1300	640	10,146	11.4	5.8	3.0	2.2
							1950	640	10,013	11.1	6.1	3.1	2.4
							2600	650	10,617	12.1	6.2	3.1	2.4
1	3	1+37.5	Blend II	72	--	--	0	750	10,037	10.3	4.8	2.4	1.8
							40	700	9,968	10.6	5.4	2.8	2.1
							130	710	10,230	10.6	5.8	3.0	2.2
							326	640	10,519	12.2	5.6	3.0	2.2
							650	660	10,446	11.2	5.3	3.0	2.2
							1100	680	10,162	10.9	5.4	3.2	2.3

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	3	1+37.5 (Cont'd)					1300	690	10,591	11.3	5.8	3.2	2.3
							1950	700	10,198	10.6	6.1	3.2	2.4
							2600	660	10,375	11.7	6.1	3.2	2.5
1	4	1+62.5	Blend I	9	Blend II	63	0	650	8,102	9.0	3.7	2.0	1.5
							40	670	10,337	11.5	5.3	2.8	2.1
							130	720	9,806	10.1	5.3	2.9	2.1
							326	670	10,158	10.7	5.5	2.9	2.1
							650	660	10,232	10.4	5.7	3.0	2.2
							1100	--	--	--	--	--	--
							1300	--	--	--	--	--	--
							1950	--	--	--	--	--	--
							2600	680	10,322	10.7	5.1	2.7	2.1
1	4	1+75	Blend I	9	Blend II	63	0	--	--	--	--	--	--
							40	670	10,190	10.9	5.3	2.8	2.0
							130	660	10,143	11.0	5.6	3.0	2.1
							326	640	10,394	11.7	5.7	2.9	2.2
							650	640	10,269	11.2	5.3	3.1	2.2
							1100	--	--	--	--	--	--
							1300	--	--	--	--	--	--
							1950	620	--	--	--	--	--

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	4	1+75 (Cont'd)					2600	620	10,626	12.3	5.5	2.6	2.1
1	4	1+87.5					0	690	10,079	10.3	4.7	2.3	1.7
							40	690	9,841	10.5	4.7	2.6	1.9
							130	670	10,237	11.2	5.2	3.0	2.2
							326	680	10,213	10.8	5.3	2.9	2.2
							650	670	10,416	11.1	5.9	3.2	2.3
							1100	--	--	--	--	--	--
							1300	--	--	--	--	--	--
							1950	--	--	--	--	--	--
							2600	680	10,112	10.7	5.7	2.8	2.2
1	5	2+12.5	Silt	72	--	--	0	450	10,038	20.1	7.1	2.7	1.9
							40	470	6,033	10.7	5.0	1.8	1.2
							130	480	6,149	10.0	3.9	1.9	1.3
							326	460	6,113	10.3	4.4	1.9	1.3
							650	470	6,077	9.9	4.5	1.9	1.3
							1100	420	5,965	10.6	4.6	2.0	1.3
							1300	440	6,116	10.5	4.0	1.8	1.3
							1950	410	6,094	10.3	4.0	1.9	1.3
							2600	440	6,227	10.0	4.5	1.7	1.2

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	5	2+25	Silt	72	--	--	0	--	--	--	--	--	--
							40	480	5,942	10.2	4.6	1.8	1.3
							130	470	6,020	9.9	4.8	1.9	1.3
							326	425	6,118	10.4	4.9	2.0	1.4
							650	440	6,444	10.9	4.6	2.1	1.5
							1100	420	6,013	10.7	4.2	2.0	1.3
							1300	450	6,276	9.7	4.7	2.0	1.4
							1950	430	6,124	10.12	4.4	1.8	1.3
							2600	440	5,963	9.9	4.6	2.0	1.4
1	5	2+37.5	Silt	72	--	--	0	460	10,001	18.9	7.0	2.7	1.8
							40	490	6,074	10.5	3.3	1.8	1.2
							130	460	5,961	10.3	4.4	1.8	1.2
							326	460	6,008	9.8	3.9	1.8	1.3
							650	430	6,071	10.1	4.2	2.0	1.3
							1100	450	6,251	10.0	4.8	2.1	1.4
							1300	460	6,340	10.3	4.4	1.9	1.3
							1950	470	6,175	9.3	4.7	1.9	1.1
							2600	460	5,960	9.4	4.6	1.8	1.3

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	1	0+12.5	Cement Stabi- lized Blend I	29	Heavy clay	43	0	1180	9,970	5.9	4.5	3.2	2.4
							40	680	10,422	7.4	5.6	4.2	3.3
							130	740	10,104	8.5	6.5	4.6	3.4
							326	640	10,127	9.4	7.6	5.0	3.7
							650	670	10,147	10.1	8.1	5.4	3.6
							1300	550	10,076	11.2	9.1	5.7	4.1
							2600	530	10,081	11.9	10.0	7.0	4.2
2	1	0+25	Cement Stabi- lized Blend I	29	Heavy clay	43	0	--	--	--	--	--	--
							40	820	10,268	9.2	8.3	4.2	3.1
							130	690	10,228	9.6	8.2	4.9	3.2
							326	640	10,324	10.2	8.3	5.1	3.3
							650	700	10,188	9.8	8.1	5.1	3.4
							1300	610	10,105	10.9	8.7	4.9	3.7
							2600	640	10,247	10.3	8.3	4.6	3.5
2	1	0+37.5	Cement Stabi- lized Blend I	29	Heavy clay	43	0	1200	9,934	5.9	4.2	2.9	2.2
							40	940	10,212	7.2	5.9	4.2	3.0
							130	770	10,242	8.6	6.5	4.4	3.1
							326	760	10,406	9.3	7.0	4.7	3.3
							650	810	10,007	8.0	6.3	4.5	3.2
							1300	690	10,383	10.1	7.3	4.6	3.4

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	1	0+37.5 (Cont'd)					2600	680	10,169	11.3	7.5	4.2	3.1
2	2	0+62.5	Cement Stabilized Blend I	29	Heavy clay	43	0	930	9,929	7.5	4.9	2.4	1.6
							40	740	10,256	10.1	6.1	2.8	2.0
							130	640	10,157	10.9	6.0	3.0	2.1
							326	640	10,326	11.6	7.8	2.6	1.8
							650	600	10,023	12.0	7.6	2.3	1.7
							1300	590	10,355	12.6	6.8	3.1	2.2
							2600	570	10,072	13.7	8.3	2.2	1.6
2	2	0+75	Cement Stabilized Blend I	29	Heavy clay	43	0	--	--	--	--	--	--
							40	900	10,170	8.2	6.3	3.4	2.0
							130	820	10,359	9.2	6.7	3.7	2.5
							326	610	10,224	9.3	6.8	4.0	2.5
							650	770	10,033	9.7	7.3	3.9	2.4
							1300	610	10,107	11.9	10.0	4.8	1.9
							2600	500	10,124	15.3	11.8	5.5	1.5
2	2	0+87.5	Cement Stabilized Blend I	29	Heavy clay	43	0	920	9,969	7.4	5.4	2.5	1.5
							40	700	10,349	10.0	6.3	3.3	2.3
							130	590	10,011	12.2	7.4	3.8	2.7
							326	540	10,213	13.5	8.2	4.1	2.8

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	2	0+87.5 (Cont'd)					650	650	10,250	12.8	7.7	3.7	2.9
							1300	530	10,028	14.0	9.4	4.3	3.3
							2600	700	10,214	10.8	8.3	4.6	2.3
2	3	1+06.25	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
							40	1880	10,231	4.7	3.6	2.6	2.1
							130	1320	10,075	6.3	4.1	2.9	2.1
							326	1250	10,128	6.4	5.1	3.4	2.2
							650	1280	10,160	6.6	5.0	3.5	2.1
							1300	1070	9,996	7.0	5.1	3.3	2.2
							2600	1160	10,395	6.7	5.0	2.9	2.2
2	3	1+12.5	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
							40	--	--	--	--	--	--
							130	--	--	--	--	--	--
							326	820	10,395	9.9	6.6	3.9	2.5
							650	--	--	--	--	--	--
							1300	--	--	--	--	--	--
							2600	--	--	--	--	--	--
2	3	1+18.5	Lean mix concrete Blend II	12	Blend II	60	0	1940	9,996	4.5	3.1	2.1	1.6
							40	1600	10,403	5.6	4.0	2.6	1.8

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	3	1+18.75 (Cont'd)					130	1350	10,086	6.2	4.3	2.9	2.2
							326	1220	10,427	6.6	5.2	3.3	2.3
							650	1370	10,167	6.1	4.6	3.0	2.1
							1300	1080	10,324	7.2	5.2	3.2	2.2
							2600	1120	10,109	6.5	5.0	3.0	1.9
2	3	1+31.25	Lean mix concrete Blend II	12	Blend II	60	0	2160	9,935	4.0	3.0	2.1	1.5
							40	1760	10,192	4.9	3.7	2.5	1.9
							130	1530	10,225	5.7	4.0	2.8	2.2
							326	1220	10,347	6.5	5.3	3.6	2.8
							650	1450	10,147	6.1	4.5	3.1	2.1
							1300	1080	10,264	6.5	5.1	3.2	2.1
							2600	1130	10,111	6.6	5.1	3.2	2.0
2	3	1+43.75	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
							40	1680	10,224	5.2	4.3	3.3	2.8
							130	1290	10,065	6.3	4.7	3.0	2.2
							326	1170	10,227	6.6	5.2	3.2	2.2
							650	1280	10,090	6.6	4.8	2.9	1.9
							1300	860	10,389	7.8	5.5	3.2	2.2
							2600	1000	10,161	7.3	5.4	2.9	2.0

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	4	1+62.5	Cement stabilized Blend I	12	Blend II	60	0	1060	9,959	7.0	4.2	2.2	1.5
							40	1010	10,219	7.5	5.1	2.5	1.7
							130	1010	10,139	7.6	5.1	2.4	1.8
							326	890	10,283	8.3	5.2	2.5	1.8
							650	980	10,110	8.0	5.4	2.5	1.8
							1300	800	10,509	9.3	5.9	2.9	2.1
							2600	820	10,345	9.0	5.8	2.6	1.9
2	4	1+75	Cement stabilized Blend I	12	Blend II	60	0	--	--	--	--	--	--
							40	970	10,548	7.9	5.4	2.7	1.9
							130	850	10,237	8.6	4.8	2.7	1.8
							326	890	10,236	8.4	5.5	2.8	1.9
							650	1060	9,888	7.4	5.2	2.5	1.7
							1300	850	10,250	8.7	6.1	2.8	2.0
							2600	780	10,000	9.2	6.1	2.8	1.9
2	4	1+87.5	Cement stabilized Blend I	12	Blend II	60	0	1280	9,966	5.7	4.0	2.2	1.6
							40	1150	10,263	6.8	4.4	2.5	1.7
							130	1100	10,237	7.1	5.0	2.6	1.8
							326	930	10,405	7.8	5.3	2.7	1.9
							650	1080	10,030	7.4	4.9	2.5	1.7
							1300	910	10,163	8.2	5.3	2.7	2.0

(Continued)

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	4	1+87.5 (Cont'd)					2600	880	10,358	8.6	5.9	2.7	2.0
2	5	2+12.5	Cement stabi-lized Blend II	16	ML	56	0	1060	9,869	6.6	4.5	2.4	1.6
							40	900	10,265	7.9	5.8	2.8	1.7
							130	730	10,215	9.4	6.8	3.2	1.9
							326	640	10,334	10.9	7.4	3.3	2.0
							650	710	10,109	10.0	7.0	2.8	1.8
							1300	600	10,241	11.1	8.8	3.3	2.1
							2600	540	9,878	11.8	8.1	3.7	1.9
2	5	2+25	Cement stabi-lized Blend II	16	ML	56	0	--	--	--	--	--	--
							40	960	10,183	7.3	5.0	2.7	1.8
							130	810	9,922	8.0	5.5	2.9	1.7
							326	680	10,471	9.4	6.5	3.3	1.9
							650	750	10,141	9.0	6.2	3.1	1.8
							1300	640	10,241	9.8	7.1	3.2	2.0
							2600	580	10,389	11.6	8.2	3.6	2.2
2	5	2+37.5	Cement stabi-lized Blend II	16	ML	56	0	1080	9,930	7.0	4.3	2.6	1.7
							40	980	10,355	7.3	5.4	2.9	1.7
							130	800	10,196	8.4	6.1	2.9	1.9
							326	700	10,423	9.5	6.5	3.2	2.0

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	5	2+37.5 (Cont'd)					650	770	10,106	8.7	6.6	2.9	1.8
							1300	610	10,667	11.0	7.8	3.2	2.1
							2600	580	10,010	10.2	7.6	3.5	2.1
3	1	0+12.5	Crushed limestone	29	Heavy clay	43	0	1010	9,990	7.3	5.4	3.5	2.6
							40	760	10,081	10.6	7.2	4.5	3.3
							130	640	10,205	12.2	8.5	5.3	3.8
							326	710	10,097	11.6	2.0	4.8	3.5
							650	680	10,107	11.6	8.3	5.1	3.7
							1300	580	10,030	12.8	9.3	5.7	4.0
							2600	570	10,154	13.4	9.7	5.9	4.1
3	1	0+25	Crushed limestone	29	Heavy clay	43	0	--	--	--	--	--	--
							40	930	10,149	9.4	6.8	4.3	3.3
							130	740	10,180	10.6	8.1	5.1	4.0
							326	830	10,151	10.4	7.7	5.0	3.7
							650	730	10,423	11.5	8.4	5.5	4.0
							1300	630	10,140	12.2	9.3	5.6	4.2
							2600	600	10,325	13.0	10.1	6.2	4.4
3	1	0+37.5	Crushed limestone	29	Heavy clay	43	0	1120	10,106	6.4	4.5	3.1	2.4
							40	950	10,174	9.4	6.5	4.3	3.4

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	1	0+37.5 (Cont'd)					130	760	10,198	10.4	7.7	4.8	3.6
							326	840	10,304	10.3	7.5	4.9	3.6
							650	740	9,923	10.9	8.0	5.0	3.7
							1300	670	10,082	11.7	8.8	5.3	3.9
							2600	630	10,265	12.3	9.2	5.7	4.3
3	2	0+62.5	Crushed limestone	12	Blend II	60	0	860	9,896	8.0	4.8	2.6	1.9
							40	900	10,166	9.7	5.7	3.2	2.4
							130	830	10,155	9.3	5.4	3.3	2.5
							326	840	10,127	9.3	5.1	3.1	2.5
							650	790	10,114	9.4	6.2	3.4	2.6
							1300	810	10,209	9.5	6.4	3.6	2.8
							2600	770	10,267	10.1	6.5	3.7	2.8
3	2	0+75	Crushed limestone	12	Blend II	60	0	--	--	--	--	--	--
							40	800	10,533	10.1	5.3	3.0	2.4
							130	790	10,387	10.1	6.0	3.1	2.5
							326	850	10,446	9.6	5.8	3.1	2.4
							650	800	9,929	9.4	6.0	3.1	2.4
							1300	700	10,119	10.5	6.2	3.5	2.7
							2600	770	10,041	9.6	6.1	3.3	2.6

(Continued)

Table A16 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	2	0+87.5	Crushed limestone	12	Blend II	60	0	880	9,976	7.6	4.5	2.5	1.8
							40	800	10,328	9.7	6.1	3.2	2.5
							130	780	10,195	9.5	6.1	3.3	2.5
							326	870	10,284	9.3	6.2	3.4	2.6
							650	800	10,066	9.6	5.8	3.5	2.7
							1300	720	10,142	10.3	6.5	3.7	3.1
							2600	750	10,176	9.9	6.5	3.7	2.9
3	3	1+12.5	Blend II* (Optimum)	6	Blend II	66	0	680	9,969	10.4	5.6	2.6	1.9
							40	720	10,279	10.5	5.7	3.3	2.6
							130	760	10,179	10.1	6.0	3.5	2.6
							326	800	10,151	9.6	5.3	3.3	2.6
							650	750	9,933	10.2	6.0	3.5	2.7
							1300	720	10,070	10.4	6.0	3.7	2.9
							2600	740	10,059	10.2	6.0	3.6	2.8
3	3	1+25	Blend II* (Optimum)	6	Blend II	66	0	--	--	--	--	--	--
							40	730	10,270	10.4	6.0	3.2	2.4
							130	750	10,099	9.8	6.2	3.3	2.5
							326	760	10,244	10.1	5.7	3.3	2.5
							650	770	10,838	10.9	6.5	3.7	2.7

(Continued)

* Double bituminous surface treatment.

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	3	1+25 (Cont'd)					1300	720	9,906	9.7	6.1	3.5	2.6
							2600	740	10,140	10.0	6.4	3.6	2.7
3	3	1+37.5	Blend II* (Optimum)	6	Blend II	66	0	750	9,942	9.4	5.3	2.6	1.9
							40	680	10,273	11.1	5.5	3.2	2.4
							130	700	10,463	10.9	6.2	3.6	2.7
							326	730	10,181	10.5	5.9	3.4	2.5
							650	700	10,752	11.3	6.8	3.8	2.8
							1300	680	10,110	10.7	6.4	3.7	2.8
							2600	710	10,241	10.2	6.4	3.7	2.8
3	4	1+62.5	Blend I** (Optimum)	12	Blend II	60	0	690	9,930	10.0	5.3	2.5	1.8
							40	670	10,204	11.2	5.6	3.1	2.2
							130	680	10,646	11.5	6.9	3.5	2.5
							326	670	10,623	11.7	6.1	3.4	2.3
							650	660	10,518	11.5	6.4	3.4	2.4
							1300	640	10,231	11.2	6.2	3.5	2.5
							2600	640	10,386	11.7	6.3	3.4	2.5
3	4	1+75	Blend I** (Optimum)	12	Blend II	60	0	--	--	--	--	--	--

(Continued)

* Double bituminous surface treatment.
** Single bituminous surface treatment.

Table A16 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	4	1+75 (Cont'd)					40	690	10,400	11.1	7.0	3.4	2.3
							130	660	10,196	11.5	6.5	3.4	2.4
							326	660	10,572	11.2	6.6	3.2	2.4
							650	660	10,424	11.4	6.1	3.4	2.5
							1300	640	10,298	11.9	6.7	3.7	2.6
							2600	770	10,241	10.9	6.4	3.6	2.6
3	4	1+87.5	Blend I* (Optimum)	12	Blend II	60	0	700	9,958	10.2	5.3	2.7	1.9
							40	640	10,140	11.4	6.2	3.2	2.4
							130	640	10,313	11.5	6.5	3.5	2.4
							326	670	10,482	11.3	6.3	3.3	2.4
							650	650	10,184	11.3	6.1	3.3	2.5
							1300	640	10,210	11.5	6.3	3.6	2.6
							2600	620	10,798	12.3	6.8	3.9	2.8
3	5	2+12.5	Blend II* (Optimum)	16	ML	56	0	680	9,974	10.3	6.0	2.9	2.1
							40	640	10,232	12.2	7.1	3.7	2.6
							130	590	10,231	13.1	8.0	3.9	2.7
							326	570	9,992	12.5	7.1	3.7	2.6
							650	570	10,126	13.1	7.6	4.0	2.8
							1300	520	10,134	13.4	8.0	4.2	2.9

(Continued)

* Single bituminous surface treatment.

Table A16 (Concluded)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	5	2+12.5 (Cont'd)					2600	530	10,207	13.4	7.6	4.1	2.8
3	5	2+25	Blend II* (Optimum)	16	ML	56	0	--	--	--	--	--	--
							40	600	10,132	12.2	6.7	3.6	2.5
							130	600	9,830	12.0	7.7	3.7	2.6
							326	590	10,067	12.7	7.6	3.8	2.7
							650	560	10,209	14.1	8.5	4.0	2.7
							1300	530	9,837	14.5	8.4	4.1	2.8
							2600	530	10,189	13.7	8.5	3.9	2.7
3	5	2+37.5	Blend II* (Optimum)	16	ML	56	0	660	9,965	10.9	5.9	2.7	1.9
							40	600	10,103	13.0	7.2	3.4	2.4
							130	610	10,526	13.1	8.1	4.0	2.7
							326	580	10,085	12.5	7.1	3.8	2.6
							650	550	10,407	13.7	8.7	4.1	2.7
							1300	510	10,231	13.5	8.5	4.1	2.7
							2600	550	10,096	12.7	7.6	3.9	2.6

* Single bituminous surface treatment.

Table A17

Nondestructive Vibratory Test Results--During Traffic

Road Rater 2008

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	1	0+12.5	Crushed limestone	36	Heavy clay	36	0	824	1170	0.7	0.4	0.3	0.2
									4480	4.3	2.4	1.7	1.3
									6940	6.8	3.5	2.5	1.9
							1100	647	1020	1.0	0.4	0.3	0.3
									4940	6.6	3.6	2.2	1.7
									7140	10.0	5.3	3.2	2.4
							1300	517	1000	1.2	0.6	0.4	0.3
									4790	7.6	3.6	2.2	1.7
									6910	11.7	5.6	3.2	2.5
							1950	480	1050	1.5	0.6	0.4	0.4
									5180	7.6	3.6	2.3	1.8
									6860	11.1	5.2	3.3	2.6
							2600	503	1100	1.3	0.6	0.4	0.3
									4960	7.3	3.4	2.2	1.7
									6920	11.2	5.0	3.1	2.4
1	1	0+25	Crushed limestone	36	Heavy clay	36	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1100	645	1100	1.3	0.5	0.4	0.3
									5100	6.5	3.3	2.2	1.8
									7100	9.6	4.7	3.1	2.5
							1300	407	1000	1.0	0.6	0.4	0.3
									4920	7.5	3.9	2.3	1.8
									6750	12.0	5.7	3.2	2.5

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	1	0+25 (Cont'd)					1950	513	1090	1.3	0.6	0.4	0.4
									5080	8.2	4.1	2.6	2.0
									7080	12.1	6.1	3.6	2.7
							2600	497	1140	1.2	0.7	0.4	0.3
									5100	6.8	3.7	2.2	1.8
									6840	10.3	5.6	3.1	2.5
1	1	0+37.5	Crushed limestone	36	Heavy clay	36	0	664	970	0.6	0.6	0.3	0.3
									4960	4.4	2.4	1.7	1.2
									7020	7.5	3.6	2.5	1.8
							1100	662	1190	1.2	0.5	0.4	0.3
									5020	6.3	3.0	2.0	1.6
									6940	9.2	4.3	2.9	2.2
							1300	589	980	1.2	0.6	0.3	0.2
									4820	6.4	3.7	2.0	1.5
									6880	9.9	5.4	2.9	2.1
							1950	634	1040	1.1	0.6	0.4	0.3
									4930	7.7	4.1	2.2	1.7
									6960	10.9	5.9	3.1	2.4
							2600	503	1270	1.4	0.7	0.5	0.3
									5080	7.4	3.5	2.2	1.6
									6890	11.0	5.3	3.2	2.2
1	2	0+62.5	Crushed limestone	9	Blend II	63	0	508	1030	0.8	0.3	0.2	0.2
									4930	4.9	2.2	1.4	1.0
									6910	8.8	3.4	2.0	1.4

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	2	0+62.5 (Cont'd)					1100	566	1000	1.1	0.4	0.3	0.2
									5070	6.0	2.6	1.2	1.0
									6880	9.2	3.9	1.7	1.3
							1300	577	944	0.8	0.3	0.2	0.1
									4890	6.5	2.4	1.1	1.0
									6910	10.0	3.5	1.7	1.4
							1950	451	1050	1.3	0.5	0.3	0.3
									5100	7.1	2.9	1.3	1.1
									7040	11.4	4.3	1.9	1.6
							2600	410	1080	1.3	0.4	0.2	0.2
									4890	9.0	2.9	1.5	1.2
									6900	13.9	4.4	2.2	1.6
1	2	0+75	Crushed limestone	9	Blend II	63	0	--	--	--	--	--	--
								--	--	--	--	--	--
								--	--	--	--	--	--
							1100	565	1060	1.4	0.4	0.3	0.3
									5160	7.0	2.6	1.8	1.4
									6910	10.1	3.8	2.6	2.0
							1300	455	1020	1.2	0.4	0.2	0.2
									5090	6.8	2.7	1.7	1.3
									6820	10.6	4.2	2.6	1.9
							1950	487	990	1.7	0.5	0.3	0.3
									5120	8.3	2.9	1.9	1.5
									7020	12.2	4.5	2.8	2.2

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	2	0+75 (Cont'd)					2600	334	1040	1.6	0.4	0.3	0.2
									4950	9.4	2.8	1.9	1.4
									6920	15.3	4.3	3.0	2.2
1	2	0+87.5	Crushed limestone	9	Blend II	63	0	317	1010	0.9	0.5	0.3	0.2
									5030	8.1	3.8	1.8	1.2
									6840	13.8	5.7	2.7	1.7
							1100	377	1060	1.8	0.6	0.3	0.4
									4990	11.0	3.7	2.0	1.6
									6950	16.2	5.2	2.9	2.2
							1300	185	1000	2.9	0.6	0.4	0.3
									4860	18.3	4.4	2.2	1.5
									6930	29.5	6.8	3.2	2.2
							1950	234	1000	1.7	0.6	0.4	0.3
									5010	11.9	4.9	2.5	1.6
									6950	29.2	7.9	3.9	2.4
							2600	210	1030	1.6	0.6	0.3	0.2
									4950	13.8	6.2	2.2	1.3
									6920	23.2	10.2	3.5	2.0
1	3	1+12.5	Blend II	72	--	--	0	398	980	1.2	0.3	0.2	0.2
									4900	7.6	2.4	1.4	1.0
									7050	13.0	3.6	2.0	1.5
							1100	286	1040	2.7	0.5	0.4	0.3
									4990	12.4	2.8	1.4	1.1
									6960	19.3	4.1	1.9	1.6

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	3	1+12.5 (Cont'd)					1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	376	1070	1.8	0.5	0.4	0.4
									5040	9.0	2.7	1.6	1.3
									6960	14.1	4.1	2.3	1.9
							2600	360	1010	1.4	0.4	0.2	0.2
									5020	8.6	2.4	1.5	1.2
									6890	13.8	3.8	2.2	1.8
1	3	1+25	Blend II	72	--	--	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1100	355	1040	3.0	0.6	0.4	0.4
									5050	11.8	2.6	1.4	1.1
									7000	17.3	3.8	1.9	1.6
							1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	394	1030	2.1	0.6	0.5	0.4
									5040	9.0	2.7	1.6	1.3
									6970	13.9	4.3	1.3	1.8
							2600	420	1070	1.3	0.4	0.3	0.2
									5030	7.9	3.0	1.6	1.3
									6960	12.5	4.3	2.3	1.8

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	3	1+37.5	Blend II	72	--	--	0	346	1060	1.1	0.3	0.2	0.1
									4850	7.2	2.5	1.3	0.9
									6790	12.8	3.7	1.8	1.3
							1100	330	1040	2.3	0.4	0.2	0.2
									4950	22.3	2.0	1.3	1.1
									6730	27.7	2.6	1.7	1.4
							1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	--	1040	2.8	0.5	0.3	0.3
									--	--	--	--	--
									--	--	--	--	--
							2600	110	980	2.5	0.3	0.2	0.2
									5040	18.4	1.9	1.3	1.2
									7090	37.0	2.7	1.9	1.6
1	4	1+62.5	Blend I	9	Blend II	63	0	276	940	3.8	0.4	0.3	0.2
									5130	19.1	2.5	1.4	1.1
									7200	26.6	3.4	2.0	1.4
							1100	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	4	1+62.5 (Cont'd)					1950	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							2600	482	980	4.6	0.5	0.3	0.2
									4990	6.5	2.4	1.4	1.1
									6920	10.5	3.7	2.0	1.6
1	4	1+75	Blend I	9	Blend II	63	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1100	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							2600	565	980	1.3	0.4	0.2	0.2
									4970	7.4	2.4	1.3	1.1
									6890	10.8	3.6	2.0	1.5
1	4	1+87.5	Blend I	9	Blend II	63	0	480	970	1.2	0.4	0.2	0.2
									4920	7.3	2.3	1.3	0.9
									7270	12.2	3.6	1.9	1.3

(Continued)

Table A17 (Continued)

			Composition											
			Top Layer		Bottom Layer									
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	4	1+87.5 (Cont'd)					1100	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							2600	576	930	1.2	0.4	0.2	0.2
									4850	6.6	2.3	1.3	1.1
									6810	10.0	3.4	2.0	1.6
1	5	2+12.5	Silt	72	--	--	0	202	970	3.1	1.1	0.4	0.4
									4820	16.1	4.6	1.7	1.3
									6840	26.1	6.3	2.3	1.9
							1100	285	1130	2.8	0.6	0.5	0.4
									5090	13.5	3.6	1.7	1.3
									6970	20.1	5.6	2.4	1.7
							1300	296	1030	1.8	0.4	0.2	0.2
									4850	11.8	3.6	1.6	1.2
									6860	18.6	5.5	2.4	1.8
							1950	170	1020	3.3	0.6	0.3	2.8
									5050	19.3	3.6	1.7	1.9
									6890	30.1	5.5	2.5	1.3

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	5	2+12.5 (Cont'd)					2600	234	1040	2.4	0.5	0.3	0.2
									4990	14.3	3.1	1.8	1.3
									7100	23.3	5.5	2.5	1.8
1	5	2+25	Silt	72	--	--	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1100	224	1020	3.6	0.6	0.3	0.2
									5080	17.6	3.6	1.8	1.3
									7030	26.3	5.0	2.5	1.8
							1300	239	1050	2.4	0.6	0.3	0.2
									4950	12.7	3.2	1.6	1.1
									7050	21.5	4.9	2.4	1.7
							1950	158	1030	3.5	0.7	0.4	0.3
									5070	20.2	4.0	1.9	1.4
									7120	33.2	6.3	2.8	2.1
							2600	217	1000	2.7	0.4	0.3	0.2
									5020	15.6	3.2	1.7	1.3
									6970	24.6	4.8	2.4	1.8
1	5	2+37.5	Silt	72	--	--	0	203	1010	2.6	0.7	0.3	0.2
									4890	15.0	3.7	1.6	1.0
									7000	25.4	5.5	2.3	1.5
							1100	285	1010	2.1	0.8	0.4	0.3
									5000	11.9	3.6	1.7	1.3
									6850	18.4	5.3	2.4	1.7

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
1	5	2+37.5 (Cont'd)					1300	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							1950	239	980	2.1	0.5	0.3	0.2
									4920	15.2	3.7	1.7	1.2
									6900	23.5	5.6	2.5	1.7
							2600	234	1010	2.2	0.5	0.3	0.2
									4940	13.7	3.5	1.7	1.3
									7070	22.8	5.3	2.5	1.8
2	1	0+12.5	Cement Stabi- lized Blend I	29	Heavy Clay	43	0	707	1010	0.5	0.3	0.3	0.2
									4890	3.4	2.1	1.7	1.4
									7010	6.4	3.2	2.6	2.0
							40	737	980	0.9	0.4	0.3	0.3
									4820	5.8	2.4	1.9	1.7
									6810	8.5	3.5	2.8	2.4
							650	682	1030	1.0	0.6	0.5	0.4
									5070	5.5	3.2	2.5	2.0
									6980	8.3	4.7	3.6	2.8
							1300	656	1020	1.0	0.6	0.5	0.4
									5200	6.0	3.9	3.0	2.4
									6970	8.7	5.5	4.1	3.3
							2600	486	1090	1.2	0.7	0.6	0.4
									5030	6.6	4.2	3.2	2.4
									6830	10.3	5.7	4.4	3.3

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	1	0+25	Cement stabi- lized Blend I	29	Heavy clay	43	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	704	1010	1.0	0.4	0.3	0.2
									4999	5.6	3.0	2.2	1.7
									6970	8.4	4.5	3.3	2.4
							650	792	1070	1.0	0.6	0.5	0.4
									5180	5.5	3.2	2.4	2.0
									7080	7.9	4.7	3.5	2.8
							1300	995	1020	1.2	0.7	0.5	0.4
									4940	5.3	3.7	2.9	2.3
									7130	7.5	5.4	4.1	3.2
							2600	727	1060	1.1	0.6	0.5	0.4
									4980	6.0	3.7	2.7	2.3
									6870	8.6	5.3	3.9	3.3
2	1	0+37.5	Cement stabi- lized Blend I	29	Heavy clay	43	0	700	1020	0.5	0.3	0.3	0.2
									5020	4.2	2.2	1.8	1.4
									7120	7.2	3.3	2.6	2.0
							40	878	1000	0.8	0.3	0.3	0.2
									4970	5.2	2.4	2.0	1.6
									6990	7.5	3.5	2.8	2.3
							650	1075	1030	0.8	0.5	0.4	0.3
									4940	4.2	2.6	2.0	1.7
									7090	6.2	3.8	2.9	2.5

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	1	0+37.5 (Cont'd)					1300	915	1060	1.1	0.5	0.5	0.5
									5120	5.2	3.0	2.4	1.9
									6950	7.2	4.3	3.5	2.7
							2600	722	1050	0.9	0.5	0.4	0.3
									4930	4.9	3.0	2.0	1.8
									6880	7.6	4.3	3.1	2.6
2	2	0+62.5	Cement stabi-lized Blend II	12	Blend II	60	0	518	1050	0.6	0.3	0.2	0.2
									5010	4.8	4.3	1.6	1.0
									7030	8.7	7.1	2.4	1.5
							40	317	1040	1.1	0.7	0.4	0.3
									4990	9.7	4.9	2.2	1.2
									6830	15.5	7.6	3.3	1.8
							650	408	990	1.3	0.7	0.3	0.2
									5000	9.6	5.7	2.2	0.9
									7000	14.5	8.8	3.3	1.3
							1300	375	1070	1.4	0.6	0.3	0.2
									5070	9.0	4.6	1.4	1.0
									6980	14.1	7.5	2.1	1.4
							2600	356	1000	1.5	0.9	0.3	0.2
									4950	10.7	6.8	2.8	1.1
									6910	16.2	11.7	4.5	1.5
2	2	0+75	Cement stabi-lized Blend II	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--

(Continued)

(Sheet 12 of 29)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	2	0+75 (Cont'd)					40	314	1160	2.0	0.6	0.3	0.2
									5130	11.4	3.6	2.1	1.3
									6890	17.0	5.0	2.9	1.8
							650	706	1050	1.0	0.4	0.3	0.2
									4960	5.8	3.0	1.8	1.3
									7150	8.9	4.4	2.7	1.8
							1300	619	1010	1.1	0.4	0.3	0.2
									5020	5.5	3.6	2.2	1.4
									7000	8.7	5.8	3.5	2.2
							2600	756	1080	1.1	0.6	0.3	0.2
									4870	6.0	3.6	1.7	1.4
									6910	8.7	5.1	2.6	2.0
2	2	0+87.5	Cement stabilized Blend II	12	Blend II	60	0	570	1010	0.6	0.3	0.2	0.2
									4940	5.2	2.6	1.7	1.1
									6820	8.5	3.7	2.5	1.5
							40	404	950	1.2	0.5	0.3	0.2
									4960	8.2	3.6	2.0	1.3
									6940	13.1	5.8	3.0	2.0
							650	265	1010	1.6	0.5	0.3	0.2
									4970	11.6	4.5	1.9	1.4
									6960	--	--	--	--
							1300	354	1040	1.8	0.6	0.3	0.3
									4980	10.4	4.5	1.9	1.6
									6960	16.0	7.5	2.9	2.4

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	2	0+87.5 (Cont'd)					2600	215	1030	2.2	1.2	0.3	0.2
									4840	19.3	9.5	1.9	1.5
									6900	28.9	9.3	3.3	2.4
2	3	1+06.25	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	863	1050	1.0	0.3	0.2	0.2
									4980	4.9	2.0	1.5	1.2
									7050	7.3	2.9	2.2	1.8
							650	1294	960	0.7	0.4	0.3	0.2
									4820	4.2	3.0	2.1	1.5
									7150	6.0	4.5	3.2	2.3
							1300	1075	1050	1.3	0.4	0.3	0.2
									5160	6.0	2.4	1.9	1.4
									6880	7.6	3.8	2.9	2.0
							2600	925	1040	0.7	0.4	0.3	0.2
									4830	4.2	2.5	1.7	1.3
									7050	6.6	4.3	2.8	1.9
2	3	1+12.5	Lean mix concrete Blend II	12	Blend II	60	0	415	1030	0.7	0.2	0.2	0.1
									4920	4.4	1.5	1.2	0.9
									7160	9.8	2.2	1.8	1.4
2	3	1+18.75	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	3	1+18.75 (Cont'd)					40	1176	1050	0.6	0.4	0.3	0.3
									5100	3.9	1.9	1.6	1.4
									7100	5.6	2.8	2.2	2.0
							650	883	950	0.9	0.4	0.3	0.2
									4990	4.9	2.9	1.9	1.4
									7020	7.2	4.5	2.8	2.1
							1300	995	1000	0.6	0.3	0.2	0.2
									5180	3.9	2.4	1.7	1.3
									7070	5.8	3.7	2.5	1.9
							2600	967	1050	0.7	0.4	0.2	0.1
									4920	4.0	2.3	1.4	1.1
									6950	6.1	3.5	2.1	1.6
2	3	1+31.25	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	1041	1020	0.7	0.4	0.4	0.3
									5220	3.4	2.2	1.7	1.5
									6990	5.1	3.0	2.4	2.1
							650	1042	1030	--	0.4	0.3	0.2
									4950	4.3	2.7	1.9	1.3
									6930	6.2	4.0	2.8	1.9
							1300	948	1040	0.9	0.4	0.3	0.2
									5000	4.9	3.1	2.2	1.4
									6990	7.0	4.6	3.3	2.0

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	3	1+31.25 (Cont'd)					2600	724	1060	0.9	0.5	0.3	0.2
									5030	4.6	3.0	2.2	1.7
									6840	7.1	4.7	3.3	2.5
2	3	1+37.5	Lean mix concrete Blend II	12	Blend II	60	0	688	1020	0.4	0.2	0.2	0.1
									4950	3.3	1.3	1.3	1.0
									7220	6.6	2.7	1.9	1.5
2	3	1+43.75	Lean mix concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	804	1010	0.5	0.3	0.3	0.2
									5010	3.9	2.0	1.5	1.3
									6940	6.3	2.9	2.2	1.8
							650	976	990	0.6	0.3	0.2	0.1
									4960	4.1	2.5	1.6	1.2
									7010	6.2	3.9	2.5	1.7
							1300	995	970	0.7	0.4	0.2	0.2
									5050	4.1	2.5	1.5	1.1
									6940	6.0	5.3	2.4	1.7
							2600	685	950	0.7	0.3	0.2	0.2
									5060	4.3	2.3	1.5	1.1
									6840	6.9	3.4	2.1	1.6
2	4	1+62.5	Cement stabilized Blend I	12	Blend II	60	0	781	980	0.6	0.3	0.2	0.2
									4870	3.9	2.1	1.3	0.9
									6900	6.5	3.0	1.9	1.3

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	4	1+62.5 (Cont'd)					40	583	950	0.9	0.4	0.3	0.2
									5150	5.6	2.2	1.4	1.0
									6900	8.6	3.2	1.9	1.4
							650	746	1020	1.0	0.3	0.2	0.2
									4910	5.3	2.2	1.1	1.0
									7000	8.1	3.5	1.6	1.4
							1300	767	1010	1.1	0.4	0.3	0.3
									5070	5.8	2.6	1.4	1.2
									7140	8.5	4.1	2.1	1.6
							2600	235	980	0.9	0.9	0.2	--
									5010	5.3	2.5	1.3	--
									6910	7.9	3.9	1.9	--
2	4	1+75	Cement stabilized Blend I	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	597	920	0.9	0.3	0.3	0.2
									5090	6.6	2.5	1.6	1.1
									6940	9.7	4.1	2.4	1.5
							650	759	1010	1.0	0.4	0.3	0.2
									4940	6.1	2.4	1.4	1.0
									6990	8.8	3.7	2.0	1.4
							1300	744	1010	1.1	0.4	0.3	0.2
									4960	5.6	2.3	1.4	1.1
									6970	8.3	3.6	2.1	1.6

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	4	1+75 (Cont'd)					2600	538	1070	1.2	0.3	0.2	0.2
									4980	6.7	2.3	1.3	0.9
									6810	10.1	6.0	1.7	1.3
2	4	1+87.5	Cement stabilized Blend I	12	Blend II	60	0	612	1090	0.6	0.3	0.2	0.1
									5030	4.2	2.0	1.3	0.9
									7110	7.6	3.0	2.0	1.3
							40	890	920	0.9	0.3	0.2	0.2
									5120	6.9	2.5	1.5	1.1
									6900	9.9	3.6	2.1	1.5
							650	863	1000	0.8	0.3	0.2	0.1
									4910	4.8	2.1	1.3	1.0
									6980	7.2	3.2	1.8	1.4
							1300	860	1020	1.0	0.3	0.3	0.2
									4920	5.5	2.1	1.4	1.1
									7070	8.0	3.3	2.1	1.6
							2600	855	1080	0.9	0.3	0.2	0.1
									5030	4.9	2.2	1.3	1.0
									6910	7.1	3.6	1.8	1.4
2	5	2+12.5	Cement stabilized Blend II	16	ML	56	0	761	990	0.4	0.3	0.2	0.1
									4880	3.8	1.9	1.4	0.9
									7010	6.6	3.1	2.1	1.4

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	5	2+12.5 (Cont'd)					40	879	1050	0.9	0.4	0.3	0.3
									4940	4.5	2.3	1.4	1.1
									7050	7.0	3.5	2.1	1.5
							650	838	970	0.9	0.4	0.2	0.2
									4950	5.0	2.6	1.5	1.1
									6960	7.4	4.0	2.2	1.5
							1300	615	1040	1.2	0.4	0.3	0.3
									4990	6.3	2.8	1.6	1.2
									7080	9.7	4.5	2.4	1.7
							2600	423	1020	1.1	0.5	0.3	0.2
									5030	6.4	2.9	1.6	1.1
									6890	10.8	4.1	2.2	1.6
2	5	2+25	Cement stabilized Blend II	16	ML	56	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	792	1140	0.9	0.4	0.3	0.3
									4990	4.5	2.3	1.4	1.1
									6970	7.0	3.5	2.1	1.5
							650	1340	990	0.9	0.3	0.2	0.1
									5100	6.1	2.3	1.5	1.1
									7100	7.6	3.4	2.2	1.6
							1300	848	1050	1.1	0.4	0.3	0.3
									5060	5.9	2.5	1.6	1.1
									7010	8.2	3.9	2.4	1.7

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
2	5	2+25 (Cont'd)					2600	660	1040	1.0	0.6	0.3	0.2
									4920	5.7	3.1	1.7	1.2
									6900	8.7	4.5	2.5	1.7
2	5	2+37.5	Cement stabilized Blend II	16	ML	56	0	817	1070	0.5	0.3	0.2	0.1
									5080	4.1	2.1	1.4	1.0
									7040	6.5	3.0	2.0	1.3
							40	758	920	0.6	0.3	0.2	0.2
									4990	4.8	2.7	1.7	1.1
									6960	7.4	4.1	2.3	1.6
							650	856	1040	1.1	0.4	0.3	0.2
									4940	5.0	2.6	1.5	1.1
									7080	7.5	4.1	2.3	1.5
							1300	792	1100	1.2	0.5	0.3	0.3
									4990	6.0	2.9	1.6	1.5
									7050	8.6	4.7	2.4	1.7
							2600	539	1040	1.0	0.5	0.3	0.2
									4950	5.9	3.0	1.6	1.1
									6890	9.5	4.5	2.4	1.7
3	1	0+12.5	Crushed limestone	29	Heavy clay	43	0	985	1170	0.8	0.4	0.3	0.3
									4920	4.1	2.5	1.9	1.5
									6890	6.1	3.4	2.7	2.1
							40	332	990	0.8	0.4	0.3	0.2
									4910	6.6	3.0	2.2	1.6
									7100	13.2	4.7	3.4	2.5

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	1	0+12.5 (Cont'd)					130	451	1030	1.1	0.5	0.3	0.2
									5000	8.0	3.5	2.6	1.8
									6760	11.9	5.2	3.7	2.6
							326	519	940	1.0	0.5	0.4	0.3
									4920	6.9	3.6	2.5	1.8
									6840	10.6	5.3	3.8	2.6
							2600	612	1030	0.9	0.5	0.4	0.3
									5000	6.2	3.3	2.3	1.8
									7020	9.5	4.8	3.3	2.6
3	1	0+25	Crushed limestone	29	Heavy clay	43	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	483	860	0.7	0.3	0.2	0.2
									5200	6.5	3.2	2.0	1.6
									6940	10.1	4.5	3.2	2.4
							130	631	950	0.8	0.4	0.3	0.2
									4860	6.3	3.5	2.4	1.8
									6880	9.5	5.2	3.5	2.6
							326	572	960	1.0	0.6	0.5	0.4
									4920	6.3	3.3	2.3	1.8
									6980	9.9	5.0	3.5	2.7
							2600	600	950	1.1	0.6	0.4	0.3
									4820	6.5	3.3	2.3	1.9
									6920	10.0	4.7	3.3	2.7

(Continued)

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	1	0+37.5	Crushed limestone	29	Heavy clay	43	0	786	1040	0.5	0.3	0.3	0.2
									4980	4.2	2.3	1.8	1.4
									7180	7.0	3.5	2.6	2.1
							40	420	950	0.8	0.3	0.2	0.2
									5120	6.2	3.0	2.2	1.6
									6840	10.3	4.5	3.4	2.4
							326	600	1000	0.9	0.5	0.4	0.3
									4940	6.1	3.4	2.4	1.7
									6800	9.2	5.1	3.5	2.6
							2600	616	1040	0.9	0.5	0.4	0.3
									4930	5.7	3.3	2.4	2.0
									6840	8.8	4.7	3.4	2.7
3	2	0+62.5	Crushed Limestone	12	Blend II	60	0	597	960	0.6	0.3	0.2	0.2
									5010	5.5	2.6	1.5	1.2
									7220	9.2	3.9	2.2	1.7
							40	402	980	0.9	0.3	0.2	0.1
									4920	7.9	2.3	1.4	1.2
									6890	12.8	3.3	2.2	1.7
							130	384	1090	1.4	0.4	0.3	0.2
									4890	7.2	2.4	1.7	1.3
									6770	12.1	3.5	2.5	1.8
							326	563	1000	1.2	0.5	0.3	0.2
									4930	7.0	2.7	1.8	1.3
									6900	10.5	4.1	2.7	2.0

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	2	0+62.5 (Cont'd)					2600	490	1050	0.9	0.4	0.3	0.2
									4870	5.7	2.4	1.6	1.2
									6780	9.6	3.3	2.3	1.7
3	2	0+75	Crushed limestone	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	368	870	1.0	0.3	0.2	0.1
									5010	7.9	2.3	1.5	1.1
									6990	13.3	3.5	2.2	1.6
							130	467	1030	1.0	0.4	0.3	0.2
									5000	6.9	3.0	1.7	1.3
									6960	11.1	4.7	2.5	1.8
							326	533	1050	1.2	0.5	0.3	0.2
									4950	7.0	2.5	1.7	1.3
									6870	10.6	3.8	2.4	1.8
							2600	553	950	0.9	0.4	0.2	0.2
									4940	5.7	2.3	1.4	1.2
									6820	9.1	3.5	2.1	1.7
3	2	0+87.5	Crushed Limestone	12	Blend II	60	0	642	980	0.7	0.3	0.2	0.2
									4920	5.6	2.4	1.4	1.0
									6910	8.7	3.6	2.1	1.5
							40	400	1010	0.9	0.4	0.3	0.2
									5070	6.7	2.3	1.3	1.2
									6990	11.5	3.8	2.1	1.8

(Continued)

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	2	0+87.5 (Cont'd)					130	454	810	0.8	0.3	0.2	0.2
									5080	7.0	2.9	1.8	1.3
									6940	11.1	4.2	2.5	1.9
							326	556	970	1.0	0.5	0.3	0.2
									4900	7.0	2.7	1.8	1.3
									6900	10.6	4.1	2.6	1.9
							455	455	1070	1.0	0.4	0.3	0.2
									4940	6.4	2.3	1.5	1.2
									6940	10.8	3.5	2.2	1.8
3	3	1+12.5	Blend II* (Optimum)	6	Blend II	66	0	433	980	1.0	0.3	0.2	0.2
									5100	7.1	3.0	1.7	1.2
									7090	11.7	4.4	2.4	1.7
							40	321	920	0.8	0.3	0.2	0.1
									5010	7.2	2.9	1.8	1.3
									6840	12.9	4.4	2.6	1.9
							130	478	1000	0.9	0.4	0.3	0.2
									4860	7.5	2.6	1.8	1.4
									6820	11.6	3.9	2.7	2.0
							326	459	1060	1.3	0.6	0.5	0.3
									5050	7.5	3.0	2.1	1.5
									6840	11.4	4.7	3.1	2.2
							2600	530	1080	1.2	0.4	0.3	0.3
									4950	6.6	3.3	1.7	1.3
									6910	10.3	5.2	2.6	2.0

(Continued)

* Double bituminous surface treatment.

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	3	1+25	Blend II* (Optimum)	6	Blend II	66	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	475	1050	1.4	0.3	0.2	0.1
									5010	10.7	2.6	1.6	1.2
									6910	14.7	3.8	2.3	1.7
							130	331	1010	1.1	0.4	0.2	0.2
									4910	7.6	2.8	1.7	1.3
									7060	14.1	4.6	2.6	1.9
							326	495	1090	1.5	0.6	0.4	0.3
									4930	7.7	2.8	1.8	1.4
									6860	11.6	4.3	2.8	2.0
							2600	669	940	0.8	0.3	0.2	0.2
									4970	6.0	2.7	1.7	1.3
									6910	8.9	5.6	2.3	1.8
3	3	1+37.5	Blend II* (Optimum)	6	Blend II	66	0	497	960	1.0	0.4	0.2	0.2
									4870	6.7	2.9	1.6	1.1
									6860	10.7	4.2	2.4	1.6
							40	371	860	1.0	0.3	0.2	0.1
									4970	10.1	2.7	1.7	1.2
									7010	15.6	4.1	2.5	1.8
							130	526	1030	2.4	0.4	0.3	0.2
									4870	10.6	2.8	1.8	1.3
									6920	14.5	4.2	2.6	1.8

(Continued)

* Double bituminous surface treatment.

Table A17 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	3	1+37.5 (Cont'd)					326	389	1050	1.6	0.5	0.4	0.3
									5020	8.6	2.6	1.9	1.4
									6850	13.3	4.4	3.9	2.7
							2600	741	970	0.8	0.3	0.2	0.2
									4930	5.3	2.4	1.6	1.2
									6930	8.0	3.6	2.3	1.8
3	4	1+62.5	Blend I* (Optimum)	12	Blend II	60	0	453	1120	1.0	0.4	0.2	0.2
									5060	7.2	3.1	1.7	1.1
									7100	11.7	4.6	2.3	1.6
							40	398	870	0.9	0.3	0.2	0.1
									5270	7.8	2.7	1.5	1.1
									6860	11.8	4.2	2.4	1.7
							130	576	870	1.1	0.4	0.3	0.2
									4900	8.4	3.2	2.0	1.3
									7030	12.1	4.8	2.7	1.8
							326	543	1070	1.2	0.6	0.4	0.3
									5000	7.8	3.0	1.8	1.2
									7010	11.5	4.3	2.5	1.8
							2600	609	950	0.9	0.3	0.2	0.2
									4950	6.3	2.4	1.4	1.2
									6960	9.6	3.5	2.1	1.7
3	4	1+75	Blend I* (Optimum)	12	Blend II	60	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--

(Continued

* Single bituminous surface treatment.

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	4	1+75 (Cont'd)					40	375	980	1.2	0.3	0.2	0.1
									4970	9.0	2.7	1.7	1.2
									6960	14.3	4.3	2.5	1.7
							130	461	1000	1.1	0.3	0.2	0.1
									4810	8.8	2.7	1.8	1.2
									6930	13.4	4.0	2.5	1.8
							326	375	1080	1.6	0.5	0.4	0.3
									4960	10.0	2.7	1.8	1.3
									6870	15.1	4.1	2.6	1.8
							2600	659	970	1.1	0.5	0.2	0.2
									4940	6.6	3.4	1.5	1.2
									7050	9.8	5.4	2.3	1.8
3	4	1+87.5	Blend I* (Optimum)	12	Blend II	60	0	468	1030	1.2	0.4	0.3	0.2
									4870	7.2	2.8	1.6	1.1
									6930	11.6	4.0	2.3	1.6
							40	538	910	1.0	0.3	0.2	0.1
									4540	8.5	2.2	1.6	1.2
									6960	13.0	4.1	2.4	1.7
							130	314	1020	1.1	0.4	0.3	0.2
									4980	9.1	3.0	1.8	1.2
									6960	15.4	4.7	2.7	1.8
							326	525	990	1.4	0.6	0.4	0.3
									4950	8.6	3.1	1.8	1.3
									6840	12.2	4.6	2.6	1.8

(Continued)

* Single bituminous surface treatment.

Table A17 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	4	1+87.5 (Cont'd)					2600	591	990	1.0	0.4	0.2	0.2
									5040	6.9	2.6	1.5	1.2
									6930	10.1	3.7	2.2	1.7
3	5	2+12.5	Blend II* (Optimum)	16	ML	56	0	459	960	1.0	0.4	0.3	0.2
									4920	6.2	2.9	1.7	1.2
									6940	10.6	4.4	2.6	1.8
							40	738	970	1.1	0.4	0.2	0.2
									4840	6.8	2.8	1.8	1.2
									6760	9.4	4.5	2.8	1.8
							130	402	1030	1.0	0.3	0.3	0.2
									4950	8.2	3.2	2.0	1.4
									6880	13.0	4.7	2.9	2.0
							326	419	1010	1.3	0.6	0.4	0.3
									5000	8.8	3.5	2.2	1.5
									6800	13.1	5.4	3.1	2.2
							2600	606	1050	1.2	0.4	0.3	0.2
									5030	6.6	2.9	1.7	1.3
									7030	9.9	4.5	2.5	1.8
3	5	2+25	Blend II* (Optimum)	16	ML	56	0	--	--	--	--	--	--
									--	--	--	--	--
									--	--	--	--	--
							40	381	1040	1.1	0.4	0.2	0.2
									5170	8.7	2.9	1.7	1.3
									6960	13.4	4.4	2.7	1.8

(Continued)

* Single bituminous surface treatment.

Table A17 (Concluded)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	DSM kips/in.	Force lb	Δ_0 mils	Δ_{18} mils	Δ_{40} mils	Δ_{60} mils
3	5	2+25 (Cont'd)					130	323	1060	1.2	0.5	0.3	0.2
									4870	8.4	3.5	2.0	1.4
									6870	14.6	5.4	3.0	2.0
							326	505	980	1.6	0.7	0.4	0.3
									5030	9.7	3.5	2.1	1.4
									7050	13.7	5.1	3.0	2.0
							2600	606	1050	1.2	0.4	0.3	0.2
									5030	6.6	2.9	1.7	1.3
									7030	9.9	4.5	2.5	1.8
3	5	2+37.5	Blend I* (Optimum)	16	ML	56	0	515	950	1.1	0.5	0.3	0.3
									4870	7.3	2.8	1.7	1.2
									6880	11.2	4.0	2.5	1.7
							40	394	990	1.2	0.4	0.3	0.2
									4940	8.4	3.2	1.9	1.4
									7070	13.8	4.7	2.8	1.9
							130	363	1050	3.2	0.6	0.4	0.3
									4960	11.7	3.5	2.0	1.3
									6920	17.1	5.0	2.8	1.9
							326	542	1070	1.4	0.6	0.4	0.3
									4930	8.5	3.7	2.3	1.6
									6880	12.1	5.4	3.2	2.2

(Continued)

* Single bituminous surface treatment.

Table A18

Nondestructive Test Data--During Traffic, Falling Weight Deflectometer

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+00	Crushed Lime-	36	Heavy	36	0	3.44	424	167	69	44	2.54
			stone		Clay			14.94	935	383	163	96	2.44
							40	3.44	432	290	104	60	1.49
								14.94	955	629	250	131	1.52
							130	3.44	424	335	122	56	1.27
								14.94	945	642	242	132	1.47
							326	3.44	456	351	98	56	1.30
								14.94	989	654	243	131	1.31
							650	3.44	438	399	116	57	1.10
								14.94	960	734	278	132	1.31
							1100	3.44	470	336	112	57	1.40
								14.94	975	643	262	128	1.52
							1300	3.44	445	346	114	59	1.29
								14.94	965	682	281	137	1.41
							1950	3.44	431	453	133	69	0.95
								14.94	967	779	324	152	1.24
							2600	3.44	417	442	94	51	0.94
								14.94	905	707	229	110	1.28
1	1	0+02	Crushed Lime-	36	Heavy	36	0	3.44	423	187	68	46	2.26
			stone		Clay			14.94	944	414	162	104	2.28
							40	3.44	424	37[illegible]	106	61	1.14
								14.94	950	705	252	136	1.35
							130	3.44	426	383	110	60	1.11
								14.94	947	731	254	137	1.29

(Continued)

(Sheet 1 of 124)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+02 (Cont'd)					326	3.44	447	411	109	64	1.09
								14.94	972	780	280	144	1.25
							650	3.44	440	442	114	66	1.00
								14.94	959	832	260	143	1.15
							1100	3.44	447	414	105	64	1.08
								14.94	975	793	264	141	1.23
							1300	3.44	429	395	107	67	1.09
								14.95	985	761	276	147	1.29
							1950	3.44	436	393	118	70	1.11
								14.94	964	764	299	156	1.26
							2600	3.44	403	334	77	54	1.21
								14.94	910	670	205	124	1.36
1	1	0+04	Crushed Limestone	36	Heavy Clay	36	0	3.44	421	158	61	43	2.66
								14.94	945	348	141	97	2.72
							40	3.44	417	339	96	59	1.23
								14.94	944	644	230	134	1.47
							130	3.44	427	328	103	60	1.30
								14.94	944	671	248	138	1.41
							326	3.44	438	365	106	67	1.20
								14.94	977	811	268	151	1.20
							650	3.44	361	375	112	63	.96
								14.94	814	858	285	147	.95
							1100	3.44	443	398	109	66	1.11
								14.94	974	798	271	146	1.22
							1300	3.44	427	354	114	65	1.21
								14.94	972	729	289	150	1.33

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+04 (Cont'd)					1950	3.44	432	381	126	74	1.13
								14.94	953	805	322	164	1.18
							2600	3.44	415	356	97	59	1.17
								14.94	909	749	241	130	1.21
1	1	0+06	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	425	118	57	42	3.60
								14.94	950	277	135	95	3.42
							40	3.44	417	339	96	59	1.23
								14.94	944	644	230	134	1.47
							130	3.44	425	337	100	55	1.26
								14.94	935	643	249	135	1.45
							326	3.44	423	386	100	47	1.10
								14.94	959	739	259	140	1.30
							360	3.44	408	435	111	65	0.94
								14.94	800	801	267	146	0.99
							1100	3.44	445	475	116	69	0.94
								14.94	955	898	270	146	1.06
							1300	3.44	422	368	116	68	1.15
								14.94	967	734	286	154	1.32
							1950	3.44	437	493	126	72	0.87
								14.94	957	858	312	162	1.12
							2600	3.44	401	322	99	58	1.25
								14.94	900	673	243	127	1.34
1	1	0+12.5	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	431	132	51	39	3.27
								14.94	935	383	164	96	2.44
							40	3.44	427	383	99	59	1.11
								14.94	944	680	225	129	1.39

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+12.5 (Cont'd)					130	3.44	425	322	104	55	1.32
								14.94	938	618	252	129	1.52
							326	3.44	440	397	95	57	1.11
								14.94	965	779	250	140	1.24
							650	3.44	438	352	109	59	1.24
								14.94	958	696	268	137	1.38
							1100	3.44	452	342	102	61	1.32
								14.94	966	698	253	135	1.38
							1300	3.44	429	396	118	64	1.08
								14.94	957	695	285	148	1.38
							1950	3.44	433	426	116	65	1.02
								14.94	958	789	283	143	1.21
							2600	3.44	400	328	76	51	1.22
								14.94	901	640	199	119	1.41
1	1	0+25	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	431	130	62	39	3.32
								14.94	950	299	147	88	3.18
							40	3.44	420	294	98	61	1.43
								14.94	942	588	245	136	1.60
							130	3.44	425	299	80	48	1.42
								14.94	938	650	249	141	1.44
							326	3.44	438	380	104	63	1.15
								14.94	948	758	257	141	1.25
							650	3.44	436	353	111	65	1.24
								14.94	943	704	263	141	1.34
							1100	3.44	429	425	106	63	1.01
								14.94	952	762	263	138	1.25

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+25 (Cont'd)					1300	3.44	428	366	105	60	1.17
								14.94	957	699	285	148	1.37
							1950	3.44	436	422	126	69	1.03
								14.94	955	828	315	153	1.15
							2600	3.44	412	405	85	56	1.02
								14.94	902	675	209	128	1.34
1	1	0+37.5	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	425	148	63	38	2.87
								14.94	943	330	145	88	2.86
							40	3.44	419	267	93	56	1.57
								14.94	944	615	214	127	1.53
							130	3.44	425	276	87	58	1.54
								14.94	934	539	205	88	1.73
							326	3.44	442	308	110	64	1.44
								14.94	962	686	261	142	1.40
							650	3.44	437	367	106	65	1.19
								14.94	946	719	258	140	1.32
							1100	3.44	446	466	84	62	0.96
								14.94	958	835	223	137	1.15
							1300	3.44	433	377	115	67	1.15
								14.94	959	744	268	144	1.29
							1950	3.44	431	476	122	66	0.91
								14.94	950	870	298	150	1.09
							2600	3.44	415	309	82	55	1.34
								14.94	903	594	202	118	1.52
1	1	0+44	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	429	195	58	40	2.20
								14.94	932	397	135	85	2.35

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+44 (Cont'd)					40	3.44	421	305	100	52	1.38
								14.94	937	625	220	115	1.50
							130	3.44	422	298	89	51	1.42
								14.94	936	626	212	120	1.50
							326	3.44	439	394	105	62	1.11
								14.94	960	690	235	126	1.39
							650	3.44	432	322	96	58	1.34
								14.94	944	706	233	123	1.34
							1100	3.44	446	394	96	57	1.13
								14.94	957	728	236	123	1.31
							1300	3.44	428	358	105	57	1.20
								14.94	955	654	245	123	1.46
							1950	3.44	435	396	106	60	1.10
								14.94	948	723	253	128	1.31
							2200	3.44	416	360	79	46	1.16
								14.94	904	627	189	103	1.44
1	1	0+46	Crushed Limestone	36	Heavy Clay	36	0	3.44	419	149	60	43	2.81
								14.94	935	337	148	91	2.77
							40	3.44	419	268	91	58	1.56
								14.94	942	542	242	126	1.74
							130	3.44	422	307	96	56	1.38
								14.94	931	620	219	125	1.50
							326	3.44	432	346	102	60	1.25
								14.94	959	706	234	127	1.36
							650	3.44	434	335	91	60	1.30
								14.94	949	667	228	125	1.42

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+46 (Cont'd)					1100	3.44	437	407	95	57	1.07
								14.94	962	777	225	124	1.24
							1300	3.44	426	337	102	59	1.26
								14.94	953	639	243	128	1.49
							1950	3.44	433	318	105	62	1.36
								14.94	950	590	258	134	1.61
							2200	3.44	394	293	81	51	1.34
								14.94	900	594	210	107	1.51
1	1	0+48	Crushed Lime-stone	36	Heavy Clay	36	0	3.44	425	271	109	58	1.57
								14.94	942	542	242	126	1.74
							40	3.44	425	271	109	58	1.57
								14.94	942	542	242	126	1.74
							130	3.44	423	278	109	55	1.52
								14.94	933	538	253	123	1.75
							326	3.44	441	297	92	54	1.48
								14.94	960	677	278	135	1.42
							650	3.44	429	292	107	64	1.47
								14.94	945	669	260	136	1.41
							1100	3.44	445	396	110	62	1.12
								14.94	958	664	258	137	1.44
							1300	3.44	427	339	107	66	1.26
								14.94	962	635	251	142	1.51
							1950	3.44	435	331	117	61	1.31
								14.94	954	584	274	143	1.61
							2200	3.44	398	328	88	46	1.21
								14.94	902	595	218	108	1.52

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	1	0+50	Crushed Limestone	36	Heavy Clay	36	0	3.44	419	267	100	42	2.02
								14.94	940	476	227	92	1.98
							40	3.44	415	517	79	34	0.80
								14.94	939	905	224	70	1.04
							130	3.44	417	484	79	38	0.86
								14.94	919	804	202	78	1.14
							326	3.44	432	507	27	29	0.85
								14.94	951	971	55	67	0.98
							650	3.44	419	292	107	64	1.43
								14.94	924	845	85	84	1.09
							1100	3.44	442	448	84	36	1.01
								14.94	957	723	229	75	1.32
							1300	3.44	427	368	98	40	1.16
								14.94	952	729	233	88	1.31
							1950	3.44	430	428	77	54	1.00
								14.94	951	732	198	106	1.30
							2200	3.44	392	367	63	16	1.07
								14.94	898	710	206	38	1.26
1	2	0+50	Crushed Limestone	9	Blend II	63	0	3.44	419	207	100	42	2.02
								14.94	940	476	227	92	1.97
							40	3.44	415	517	79	34	0.80
								14.94	939	905	224	71	1.04
							130	3.44	417	484	79	38	0.86
								14.94	919	804	202	78	1.14

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+50 (Cont'd)					326	3.44	433	508	27	29	0.85
								14.94	951	971	55	67	0.98
							650	3.44	419	292	107	64	1.43
								14.94	924	845	85	84	1.09
							1100	3.44	442	448	84	36	1.01
								14.94	957	723	229	75	1.32
							1300	3.44	445	346	114	59	1.29
								14.94	965	682	281	137	1.41
							1950	3.44	431	453	133	69	0.95
								14.94	967	779	324	152	1.24
							2600	3.44	417	442	94	51	0.94
								14.94	905	707	229	110	1.28
1	2	0+52.25	Crushed Limestone	9	Blend II	63	0	3.44	386	454	87	37	0.85
								14.94	898	1040	256	93	0.86
							40	3.44	423	551	97	45	0.77
								14.94	938	1110	215	101	0.85
							130	3.44	417	593	117	75	0.70
								14.94	926	1115	265	111	0.83
							326	3.44	435	589	94	51	0.74
								14.94	954	1140	217	110	0.84
							650	3.44	431	600	133	51	0.72
								14.94	938	1110	235	100	0.85
							1100	3.44	441	750	124	54	0.59
								14.94	941	1240	234	107	0.76

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+52.25 (Cont'd)					1300	3.44	422	627	129	55	0.67
								14.94	950	1105	265	120	0.86
							1950	3.44	435	736	139	59	0.59
								14.94	938	1205	262	122	0.78
							2600	3.44	390	660	97	45	0.59
								14.94	887	1165	239	105	0.76
1	2	0+53.25	Crushed Lime-stone	9	Blend II	63	0	3.44	392	319	73	36	1.23
								14.94	906	861	227	97	1.05
							40	3.44	414	489	97	48	0.85
								14.94	938	1020	257	112	0.92
							130	3.44	416	346	103	49	1.20
								14.94	928	782	237	110	1.19
							326	3.44	436	514	95	52	0.85
								14.94	950	1120	232	113	0.85
							650	3.44	421	520	99	53	0.81
								14.94	927	1060	230	109	0.87
							1100	3.44	449	505	109	52	0.89
								14.94	959	880	241	108	1.09
							1300	3.44	425	488	120	54	0.87
								14.94	950	1105	265	120	0.86
							1950	3.44	431	458	124	58	0.94
								14.94	940	862	283	126	1.09
							2600	3.44	411	455	97	46	0.90
								14.94	899	845	223	105	1.06

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+55.00	Crushed Lime- stone	9	Blend II	63	0	3.44	388	361	88	34	1.07
								14.94	895	739	193	89	1.21
							40	3.44	416	356	87	46	1.17
								14.94	939	764	207	100	1.23
							130	3.44	413	344	89	45	1.20
								14.94	922	670	202	105	1.38
							326	3.44	438	362	85	47	1.21
								14.94	949	758	198	102	1.25
							650	3.44	427	360	88	48	1.19
								14.94	932	635	200	106	1.47
							1100	3.44	443	470	89	46	0.94
								14.94	954	725	197	98	1.32
							1300	3.44	423	366	89	46	1.16
								14.94	956	696	210	107	1.37
							1950	3.44	432	314	94	52	1.38
								14.94	953	594	215	112	1.60
							2600	3.44	406	265	/0	40	1.53
								14.94	913	550	172	95	1.66
1	2	0+56.75	Crushed Lime- stone	9	Blend II	63	0	3.44	388	313	91	39	1.24
								14.94	895	631	198	86	1.42
							40	3.44	410	288	69	36	1.42
								14.94	922	717	203	106	1.29
							130	3.44	412	282	96	32	1.46
								14.94	928	656	233	104	1.41

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+56.75 (Cont'd)					326	3.44	423	280	76	46	1.51
								14.94	927	653	194	108	1.42
							650	3.44	425	305	88	49	1.39
								14.94	936	695	216	109	1.35
							1100	3.44	443	380	89	44	1.17
								14.94	952	765	205	97	1.24
							1300	3.44	424	308	82	47	1.38
								14.94	951	595	206	110	1.60
							1950	3.44	425	394	94	52	1.08
								14.94	944	653	235	117	1.45
							2600	3.44	409	295	76	44	1.39
								14.94	903	605	184	96	1.49
1	2	0+58.50	Crushed Lime-stone	9	Blend II	63	0	3.44	386	314	75	33	1.23
								14.94	894	644	178	82	1.39
							40	3.44	416	395	97	37	1.05
								14.94	936	727	231	78	1.29
							130	3.44	408	298	85	27	1.37
								14.94	921	744	215	55	1.24
							326	3.44	435	333	77	28	1.31
								14.94	941	756	189	59	1.24
							650	3.44	428	440	98	30	0.97
								14.94	930	855	226	59	1.09
							1100	3.44	439	470	64	30	0.93
								14.94	947	780	158	64	1.21
							1300	3.44	419	493	79	34	0.85
								14.94	954	731	198	73	1.31

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+58.50 (Cont'd)					1950	3.44	426	369	85	33	1.15
								14.94	945	686	209	76	1.38
							2600	3.44	398	380	47	19	1.05
								14.94	898	730	140	41	1.23
1	2	0+60.25	Crushed Lime-stone	9	Blend II	63	0	3.44	393	190	76	38	2.07
								14.94	910	466	194	88	1.95
							40	3.44	415	369	94	36	1.12
								14.94	932	784	249	90	1.19
							130	3.44	415	326	69	32	1.27
								14.94	923	784	186	84	1.18
							326	3.44	434	362	51	26	1.20
								14.94	943	779	153	68	1.21
							650	3.44	416	345	60	32	1.21
								14.94	921	805	171	78	1.14
							1100	3.44	437	360	80	38	1.21
								14.94	947	735	199	87	1.29
							1300	3.44	417	305	64	37	1.37
								14.94	951	660	189	92	1.44
							1950	3.44	425	398	74	46	1.07
								14.94	948	776	201	95	1.22
							2600	3.44	401	370	49	26	1.08
								14.94	900	710	137	61	1.27
1	2	0+61.25	Crushed Lime-stone	9	Blend II	63	0	3.44	390	249	82	40	1.57
								14.94	901	560	195	88	1.61

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+61.25 (Cont'd)					40	3.44	413	404.5	88	37	1.02
								14.94	923	850	234	95	1.09
							130	3.44	412	336	75	39	1.23
								14.94	928	690	185	99	1.34
							326	3.44	437	308	79	41	1.42
								14.94	945	746	195	95	1.27
							650	3.44	426	370	93	45	1.15
								14.94	930	760	223	102	1.22
							1100	3.44	442	380	82	44	1.16
								14.94	953	660	207	103	1.44
							1300	3.44	420	388	81	44	1.08
								14.94	946	731	193	105	1.29
							1950	3.44	407	459	83	46	0.91
								14.94	936	830	214	111	1.13
							2600	3.44	396	310	65	80	1.28
								14.94	905	640	164	115	1.41
1	2	0+62.25	Crushed Lime-stone	9	Blend II	63	0	3.44	418	230	78	42	1.82
								14.94	931	537	186	90	1.73
							40	3.44	416	405	86	43	1.03
								14.94	928	824	218	100	1.13
							130	3.44	407	425	96	45	0.96
								14.94	925	728	206	103	1.27
							326	3.44	431	494	76	45	0.87
								14.94	930	916	190	100	1.02
							650	3.44	423	315	90	45	1.34
								14.94	926	840	209	104	1.10

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+62.25 (Cont'd)					1100	3.44	438	340	90	49	1.29
								14.94	954	660	207	103	1.45
							1300	3.44	422	380	86	44	1.11
								14.94	957	674	216	106	1.42
							1950	3.44	453	507	85	49	0.89
								14.94	976	814	220	115	1.20
							2600	3.44	404	410	50	41	0.99
								14.94	904	680	127	91	1.33
1	2	0+63.93	Crushed Lime-stone	9	Blend II	63	0	3.44	419	256	85	41	1.64
								14.94	931	571	199	98	1.63
							40	3.44	400	311	82	48	1.29
								14.94	930	704	214	105	1.32
							130	3.44	416	408	97	48	1.02
								14.94	923	739	227	110	1.25
							326	3.44	425	435	81	53	0.98
								14.94	941	693	204	112	1.36
							650	3.44	418	305	85	49	1.37
								14.94	925	755	209	108	1.23
							1100	3.44	443	335	92	49	1.32
								14.94	954	685	207	107	1.39
							1300	3.44	421	285	88	47	1.48
								14.94	955	558	215	113	1.71
							1950	3.44	440	298	98	50	1.48
								14.94	961	713	228	118	1.35
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+65.60	Crushed Lime-stone	9	Blend II	63	0	3.44	420	207	100	42	2.03
								14.94	940	476	227	92	2.10
							40	3.44	416	302	91	55	1.38
								14.94	946	694	222	121	1.36
							130	3.44	413	340	77	39	1.21
								14.94	921	724	221	114	1.27
							326	3.44	430	252	84	53	1.71
								14.94	946	595	205	113	1.59
							650	3.44	419	250	82	55	1.68
								14.94	928	700	197	116	1.33
							1100	3.44	435	520	90	55	0.84
								14.94	944	750	208	118	1.26
							1300	3.44	417	304	89	56	1.37
								14.94	950	587	215	128	1.62
							1950	3.44	438	301	90	57	1.46
								14.94	961	605	224	134	1.59
							2600	3.44	410	380	81	52	1.08
								14.94	905	580	183	116	1.56
1	2	0+67.28	Crushed Lime-stone	9	Blend II	63	0	3.44	411	367	104	45	1.12
								14.94	907	825	241	103	1.10
							40	3.44	409	390	59	39	1.05
								14.94	922	803	179	82	1.15
							130	3.44	411	348	66	31	1.18
								14.94	910	690	145	79	1.32
							326	3.44	414	307	26	37	1.35
								14.94	929	688	129	89	1.35

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+67.28 (Cont'd)					650	3.44	421	315	69	52	1.34
								14.94	925	730	181	116	1.27
							1100	3.44	440	390	101	75	1.13
								14.94	950	790	228	161	1.20
							1300	3.44	411	362	85	55	1.14
								14.94	945	772	213	131	1.22
							1950	3.44	415	411	111	77	1.01
								14.94	947	825	257	170	1.15
							2600	3.44	395	295	79	52	1.34
								14.94	905	645	201	128	1.40
1	2	0+68.96	Crushed Lime-stone	9	Blend II	63	0	3.44	417	334	136	44	1.25
								14.94	923	738	311	103	1.25
							40	3.44	403	403	87	45	1.00
								14.94	924	976	231	95	0.95
							130	3.44	416	435	--	54	0.96
								14.94	919	867	114	116	1.06
							326	3.44	421	474	152	72	0.89
								14.94	926	977	321	133	0.95
							650	3.44	406	545	217	77	0.74
								14.94	903	1050	484	154	0.86
							1100	3.44	421	655	306	82	0.64
								14.94	936	1240	608	146	0.75
							1300	3.44	435	473	236	85	0.92
								14.94	971	969	501	157	1.00
							1950	3.44	363	669	330	101	0.54
								14.94	726	1245	690	175	0.58

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+68.96 (Cont'd)					2600	3.44	389	765	410	73	0.51
								14.94	783	1470	858	131	0.53
1	2	0+70.25	Crushed Lime-stone	9	Blend II	63	0	3.44	381	343	100	44	1.11
								14.94	887	841	251	104	1.05
							40	3.44	407	571	--	58	0.71
								14.94	922	1125	365	132	0.82
							130	3.44	409	508	132	55	0.81
								14.94	919	1210	290	131	0.76
							326	3.44	426	614	147	66	0.69
								14.94	930	1260	342	140	0.74
							650	3.44	422	690	211	72	0.61
								14.94	918	1310	434	148	0.70
							1100	3.44	435	850	187	72	0.51
								14.94	928	1530	410	140	0.61
							1300	3.44	426	793	267	79	0.54
								14.94	959	1500	474	159	0.64
							1950	3.44	90	923	309	90	0.10
								14.94	287	1635	548	177	0.18
							2600	3.44	384	985	150	59	0.39
								14.94	867	1800	377	140	0.48
1	2	0+71.50	Crushed Lime-stone	9	Blend II	63	0	3.44	392	301	90	43	1.30
								14.94	899	724	223	104	1.24
							40	3.44	415	465	119	56	0.89
								14.94	924	980	289	131	0.94
							130	3.44	411	417	137	57	0.99
								14.94	914	918	281	121	0.99

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+71.50 (Cont'd)					326	3.44	428	429	108	48	1.00
								14.94	936	878	257	123	1.07
							650	3.44	419	540	133	61	0.78
								14.94	917	1155	314	128	0.79
							1100	3.44	437	585	130	57	0.75
								14.94	937	1090	288	120	0.86
							1300	3.44	432	515	135	61	0.84
								14.94	967	995	312	130	0.97
							1950	3.44	325	509	147	64	0.64
								14.94	793	1035	332	140	0.77
							2600	3.44	402	440	98	51	0.91
								14.94	897	885	234	117	1.01
1	2	0+73.10	Crushed Limestone	9	Blend II	63	0	3.44	392	330	86	43	1.19
								14.94	896	693	190	98	1.29
							40	3.44	419	352	77	47	1.19
								14.94	934	770	218	118	1.21
							130	3.44	414	431	82	49	0.96
								14.94	917	772	203	112	1.19
							326	3.44	431	366	83	54	1.18
								14.94	935	758	200	114	1.23
							650	3.44	422	410	92	54	1.03
								14.94	923	785	216	120	1.18
							1100	3.44	440	315	86	51	1.40
								14.94	950	655	197	111	1.45
							1300	3.44	440	320	86	53	1.38
								14.94	980	655	205	116	1.50

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+73.10 (Cont'd)					1950	3.44	439	365	94	55	1.20
								14.94	956	710	228	126	1.35
							2600	3.44	394	400	58	45	0.99
								14.94	896	790	147	103	1.13
1	2	0+74.75	Crushed Lime-stone	9	Blend II	63	0	3.44	388	309	85	40	1.26
								14.94	898	631	191	91	1.42
							40	3.44	418	323	99	41	1.29
								14.94	928	670	219	112	1.39
							130	3.44	414	389	84	50	1.06
								14.94	922	747	185	115	1.23
							326	3.44	427	390	80	48	1.09
								14.94	936	745	193	107	1.26
							650	3.44	420	355	89	53	1.18
								14.94	922	745	214	111	1.24
							1100	3.44	437	440	99	46	0.99
								14.94	943	755	222	96	1.25
							1300	3.44	440	350	92	52	1.26
								14.94	967	675	208	118	1.43
							1950	3.44	398	347	90	52	1.15
								14.94	936	700	218	120	1.34
							2600	3.44	406	375	64	49	1.08
								14.94	896	695	164	107	1.29
1	2	0+76.35	Crushed Lime-stone	9	Blend II	63	0	3.44	391	293	88	38	1.33
								14.94	899	572	192	85	1.57

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+76.35 (Cont'd)					40	3.44	415	337	99	42	1.23
								14.94	933	677	245	96	1.38
							130	3.44	413	363	88	38	1.14
								14.94	919	717	216	84	1.28
							326	3.44	428	307	69	36	1.39
								14.94	938	695	163	74	1.35
							650	3.44	424	320	74	37	1.33
								14.94	927	745	185	88	1.24
							1100	3.44	432	385	59	26	1.12
								14.94	933	755	168	59	1.24
							1300	3.44	433	315	78	37	1.37
								14.94	971	610	179	84	1.59
							1950	3.44	435	352	90	43	1.24
								14.94	949	846	213	89	1.12
							2600	3.44	402	415	55	26	0.97
								14.94	894	790	141	48	1.13
1	2	0+77.96	Crushed Lime-stone	9	Blend II	63	0	3.44	389	295	80	35	1.32
								14.94	897	636	192	85	1.41
							40	3.44	416	423	72	35	0.98
								14.94	921	887	210	76	1.04
							130	3.44	415	391	81	351	1.06
								14.94	918	740	215	82	1.24
							326	3.44	426	333	61	47	1.28
								14.94	932	733	170	74	1.27
							650	3.44	422	315	69	34	1.34
								14.94	919	820	178	68	1.12

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+77.96 (Cont'd)					1100	3.44	421	555	63	38	0.76
								14.94	932	940	173	83	0.99
							1300	3.44	434	345	75	34	1.26
								14.94	966	620	191	73	1.56
							1950	3.44	177	422	80	40	0.42
								14.94	491	791	216	90	0.62
							2600	3.44	402	435	71	35	0.92
								14.94	891	850	193	79	1.05
1	2	0+79.25	Crushed Lime-stone	9	Blend II	63	0	3.44	394	261	85	35	1.51
								14.94	909	563	193	83	1.61
							40	3.44	412	495	94	38	0.83
								14.94	927	860	237	90	1.08
							130	3.44	414	438	78	43	0.95
								14.94	913	770	186	94	1.19
							326	3.44	428	529	70	45	0.81
								14.94	923	842	166	95	1.10
							650	3.44	418	320	66	44	1.31
								14.94	917	805	177	94	1.14
							1100	3.44	422	465	71	44	0.91
								14.94	942	715	165	97	1.32
							1300	3.44	425	360	72	45	1.18
								14.94	969	760	180	104	1.28
							1950	3.44	417	455	80	48	0.92
								14.94	931	808	212	115	1.15
							2600	3.44	397	405	67	37	0.98
								14.94	897	795	183	89	1.13

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+80.54	Crushed Limestone	9	Blend II	63	0	3.44	430	233	92	45	1.85
								14.94	942	529	187	93	1.78
							40	3.44	410	458	89	44	0.90
								14.94	926	828	187	98	1.12
							130	3.44	410	389	87	48	1.12
								14.94	920	724	210	110	1.27
							326	3.44	425	257	86	53	1.65
								14.94	936	715	203	112	1.31
							650	3.44	416	455	84	53	0.91
								14.94	921	795	209	116	1.16
							1100	3.44	416	410	95	51	1.01
								14.94	942	810	211	107	1.16
							1300	3.44	432	370	93	49	1.17
								14.94	962	730	214	113	1.32
							1950	3.44	326	440	105	55	0.74
								14.94	686	828	253	123	0.83
							2600	3.44	396	410	84	47	0.97
								14.94	898	765	203	109	1.17
1	2	0+82.07	Crushed Limestone	9	Blend II	63	0	3.44	428	254	91	47	1.69
								14.94	949	552	199	110	1.72
							40	3.44	465	320	94	54	1.45
								14.94	999	638	224	122	1.57
							130	3.44	410	306	95	53	1.34
								14.94	918	733	238	122	1.25
							326	3.44	426	266	89	55	1.60
								14.94	936	713	213	119	1.31

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+82.07 (Cont'd)					650	3.44	419	360	94	54	1.16
								14.94	928	730	225	121	1.27
							1100	3.44	421	340	91	53	1.24
								14.94	945	785	211	114	1.20
							1300	3.44	429	285	95	60	1.51
								14.94	963	550	217	129	1.75
							1950	3.44	409	433	97	59	0.94
								14.94	925	778	235	134	1.19
							2600	3.44	397	355	78	52	1.12
								14.94	900	670	190	114	1.34
1	2	0+83.60	Crushed Limestone	9	Blend II	63	0	3.44	424	230	99	51	1.84
								14.94	941	497	208	112	1.89
							40	3.44	458	422	104	63	1.09
								14.94	995	682	245	131	1.46
							130	3.44	403	290	93	55	1.39
								14.94	914	705	219	126	1.30
							326	3.44	426	240	93	63	1.78
								14.94	937	591	215	132	1.59
							650	3.44	418	370	96	60	1.13
								14.94	921	710	244	131	1.30
							1100	3.44	419	315	101	61	1.33
								14.94	947	605	222	131	1.57
							1300	3.44	425	355	98	63	1.20
								14.94	963	680	231	140	1.42
							1950	3.44	404	432	99	64	0.94
								14.94	907	697	244	151	1.30

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+83.60 (Cont'd)					2600	3.44	391	325	76	53	1.20
								14.94	901	605	181	121	1.49
1	2	0+85.13	Crushed Lime-stone	9	Blend II	63	0	3.44	408	332	98	51	1.23
								14.94	920	682	246	127	1.35
							40	3.44	445	505	79	62	0.88
								14.94	983	969	222	145	1.01
							130	3.44	410	439	71	58	0.93
								14.94	916	842	189	135	1.09
							326	3.44	419	324	94	74	1.29
								14.94	931	695	240	169	1.34
							650	3.44	410	250	921	70	1.64
								14.94	916	715	232	165	1.28
							1100	3.44	412	345	80	61	1.19
								14.94	939	745	197	140	1.26
							1300	3.44	417	325	98	77	1.28
								14.94	957	645	237	173	1.48
							1950	3.44	385	419	125	85	0.92
								14.94	903	803	302	200	1.12
							2600	3.44	391	350	90	68	1.12
								14.94	898	707	204	150	1.27
1	2	0+86.66	Crushed Lime-stone	9	Blend II	63	0	3.44	419	443	153	68	0.95
								14.94	932	940	358	142	0.99
							40	3.44	439	707	262	71	0.62
								14.94	969	1475	567	142	0.66
							130	3.44	405	350	157	89	1.16
								14.94	908	876	386	192	1.03

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+86.66 (Cont'd)					326	3.44	417	455	222	103	0.92
								14.94	926	975	514	187	0.95
							650	3.44	911	605	234	111	0.68
								14.94	904	1205	548	231	0.75
							1100	3.44	260	595	286	115	0.44
								14.94	554	1130	608	200	0.49
							1300	3.44	420	435	230	121	0.97
								14.94	950	905	521	242	1.05
							1950	3.44	397	537	284	141	0.74
								14.94	894	1075	627	303	0.83
							2600	3.44	390	480	125	101	0.81
								14.94	890	1000	229	216	0.89
1	2	0+88.25	Crushed Lime-stone	9	Blend II	63	0	3.44	389	470	127	51	0.83
								14.94	891	1067	322	116	0.84
							40	3.44	444	660	125	67	0.67
								14.94	971	1205	285	139	0.81
							130	3.44	409	686	246	67	0.60
								14.94	908	1385	523	146	0.66
							326	3.44	418	683	222	74	0.61
								14.94	914	1280	474	154	0.71
							650	3.44	401	78(	294	73	0.51
								14.94	883	1645	576	153	0.54
							1100	3.44	418	760	243	72	0.55
								14.94	921	1440	504	155	0.64
							1300	3.44	416	815	402	77	0.51
								14.94	926	1577	375	162	0.59

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+88.25 (Cont'd)					1950	3.44	382	889	364	84	0.43
								14.94	868	1675	704	170	0.52
							2600	3.44	387	745	148	65	0.52
								14.94	875	1445	380	142	0.61
1	2	0+89.83	Crushed Lime-stone	9	Blend II	63	0	3.44	391	330	93	49	1.18
								14.94	895	815	226	113	1.10
							40	3.44	447	624	122	67	0.72
								14.94	971	1125	286	140	0.86
							130	3.44	406	551	105	61	0.74
								14.94	906	1055	286	140	0.86
							326	3.44	418	425	116	61	0.98
								14.94	922	990	284	132	0.93
							650	3.44	402	555	123	66	0.72
								14.94	907	1185	306	142	0.77
							1100	3.44	319	555	123	63	0.57
								14.94	669	1150	297	143	0.56
							1300	3.44	418	650	117	61	0.64
								14.94	936	1260	300	143	0.74
							1950	3.44	395	492	105	65	0.80
								14.94	896	864	257	148	1.04
							2600	3.44	432	690	101	61	0.63
								14.94	887	1230	257	137	0.72
1	2	0+91.29	Crushed Lime-stone	9	Blend II	63	0	3.44	395	341	95	52	1.16
								14.94	914	704	238	113	1.30
							40	3.44	450	524	116	65	0.86
								14.94	978	929	246	133	1.05

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+91.29 (Cont'd)					130	3.44	409	352	93	57	1.16
								14.94	924	758	235	132	1.22
							326	3.44	419	299	96	60	1.40
								14.94	930	744	226	128	1.25
							650	3.44	413	485	101	58	0.85
								14.94	914	890	230	126	1.03
							1100	3.44	419	447	100	59	0.94
								14.94	935	885	224	127	1.06
							1300	3.44	405	387	87	78	1.05
								14.94	929	720	205	134	1.29
							1950	3.44	389	271	99	64	1.44
								14.94	912	702	252	146	1.30
							2600	3.44	405	390	81	53	1.04
								14.94	896	775	195	117	1.16
1	2	0+92.75	Crushed Limestone	9	Blend II	63	0	3.44	396	287	93	45	1.38
								14.94	891	685	209	93	1.30
							40	3.44	429	401	83	55	1.07
								14.94	973	818	229	110	1.19
							130	3.44	413	350	97	51	1.18
								14.94	919	748	228	107	1.23
							326	3.44	339	307	95	54	1.10
								14.94	749	628	231	116	1.19
							650	3.44	412	410	97	55	1.00
								14.94	909	805	219	121	1.13
							1100	3.44	422	395	98	51	1.07
								14.94	945	800	219	105	1.18

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+92.75 (Cont'd)					1300	3.44	427	290	99	56	1.47
								14.94	955	560	232	119	1.71
							1950	3.44	413	382	102	59	1.08
								14.94	909	739	256	127	1.23
							2600	3.44	404	393	86	47	1.03
								14.94	901	710	202	99	1.27
1	2	0+94.21	Crushed Lime-stone	9	Blend II	63	0	3.44	429	307	102	41	1.40
								14.94	961	683	226	90	1.41
							40	3.44	441	436	--	51	1.01
								14.94	973	851	--	108	1.14
							130	3.44	410	441	53	46	0.93
								14.94	912	834	124	95	1.09
							326	3.44	420	344	--	52	1.22
								14.94	925	651	129	115	1.42
							650	3.44	411	460	82	53	0.89
								14.94	910	860	183	120	1.06
							1100	3.44	410	600	94	60	0.68
								14.94	945	800	219	105	1.18
							1300	3.44	420	367	73	58	1.14
								14.94	945	725	162	129	1.18
							1950	3.44	409	422	101	63	0.97
								14.94	908	801	234	137	1.13
							2600	3.44	394	405	88	52	0.97
								14.94	896	790	211	122	1.13

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+95.67	Crushed Lime-stone	9	Blend II	63	0	3.44	418	369	91	62	1.13
								14.94	945	809	228	122	1.17
							40	3.44	433	475	142	75	0.91
								14.94	965	1035	352	167	0.93
							130	3.44	409	480	115	65	0.85
								14.94	909	946	298	161	0.96
							326	3.44	416	494	125	70	0.84
								14.94	907	925	300	168	0.98
							650	3.44	414	495	128	74	0.84
								14.94	906	965	318	171	0.94
							1100	3.44	420	675	182	74	0.62
								14.94	918	1075	431	160	0.85
							1300	3.44	424	405	150	81	1.05
								14.94	943	785	373	194	1.20
							1950	3.44	408	450	169	80	0.91
								14.94	898	942	434	193	0.95
							2600	3.44	392	425	128	59	0.92
								14.94	887	850	328	149	1.04
1	2	0+97.25	Crushed Lime-stone	9	Blend II	63	0	3.44	415	382	78	39	1.09
							40	3.44	402	533	64	49	0.75
								14.94	834	995	178	105	0.84
							130	3.44	404	553	140	59	0.73
								14.94	897	1060	351	134	0.85
							326*	3.44	116	363	134	58	0.32
								14.94	175	847	315	127	0.21

(Continued)

* FWD tilted due to uneven transition.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	0+97.25 (Cont'd)					650	3.44	408	520	128	55	0.78
								14.94	896	1140	299	132	0.79
							1100	3.44	420	440	135	56	0.95
								14.94	926	955	301	129	0.97
							1300	3.44	416	435	189	68	0.98
								14.94	925	930	423	145	0.99
							1950	3.44	403	524	178	70	0.77
								14.94	904	1060	419	149	0.85
							2600	3.44	394	475	117	52	0.83
								14.94	887	985	285	116	0.90
1	2	1+00	Crushed Lime-stone	9	Blend II	63	0	3.44	368	755	--	41	0.49
								14.94	748	1615	241	83	0.46
							40	3.44	441	524	112	54	0.84
								14.94	959	1000	248	115	0.96
							130	3.44	404	496	88	50	0.81
								14.94	906	1045	212	112	0.87
							326	3.44	420	594	99	51	0.71
								14.94	861	1125	226	114	0.77
							650	3.44	408	565	85	48	0.72
								14.94	907	1015	202	106	0.89
							1100	3.44	417	825	102	49	0.51
								14.94	917	1120	208	101	0.82
							1300	3.44	206	310	83	51	0.66
								14.94	413	645	194	106	0.64
							1950	3.44	389	499	99	55	0.78
								14.94	899	955	247	125	0.94

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	2	1+00 (Cont'd)					2600	3.44	391	745	76	44	0.52
								14.94	882	1187	164	98	0.74
1	3	1+00	Blend II	72	--	--	0	3.44	368	755	--	41	0.49
								14.94	748	1615	241	83	0.46
							40	3.44	441	524	112	54	0.84
								14.94	959	1000	248	115	0.96
							130	3.44	404	496	88	50	0.81
								14.94	906	1045	212	112	0.87
							326	3.44	420	594	99	51	0.71
								14.94	861	1125	226	114	0.77
							650	3.44	408	565	85	48	0.72
								14.94	907	1015	202	106	0.89
							1100	3.44	417	825	102	49	0.51
								14.94	917	1120	208	101	0.82
							1300	3.44	206	310	83	51	0.66
								14.94	413	645	194	106	0.64
							1950	3.44	389	499	99	55	0.78
								14.94	899	955	247	125	0.94
							2600	3.44	391	745	76	44	0.52
								14.94	882	1187	164	98	0.74
1	3	1+02	Blend II	72	--	--	0	3.44	402	651	68	32	0.62
								14.94	900	1200	162	76	0.75
							40	3.44	445	628	84	48	0.71
								14.94	963	1150	196	106	0.84
							130	3.44	403	555	79	44	0.73
								14.94	899	1080	172	96	0.83

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+02 (Cont'd)					326	3.44	420	535	75	47	0.83
								14.94	924	1030	168	95	0.90
							650	3.44	419	475	82	42	0.88
								14.94	914	940	196	96	0.97
							1100	3.44	425	717	106	42	0.59
								14.94	924	1080	185	86	0.86
							1300	3.44	183	405	73	45	0.45
								14.94	443	870	174	97	0.51
							1950	3.44	404	480	81	45	0.84
								14.94	894	897	206	101	0.99
							2600	3.44	389	485	63	38	0.80
								14.94	892	923	151	85	0.97
1	3	1+04	Blend II	72	--	--	0	3.44	404	474	70	36	0.85
								14.94	920	1085	160	76	0.85
							40	3.44	443	583	80	47	0.76
								14.94	963	1040	150	98	0.93
							130	3.44	403	362	80	44	1.11
								14.94	901	927	184	93	0.97
							326	3.44	412	575	71	43	0.72
								14.94	919	970	165	92	0.95
							650	3.44	413	435	61	35	0.95
								14.94	912	835	174	94	1.09
							1100	3.44	425	645	116	44	0.66
								14.94	928	915	223	90	1.01
							1300	3.44	110	380	67	41	0.29
								14.94	327	680	165	90	0.48

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+04 (Cont'd)					1950	3.44	404	439	86	42	0.92
								14.94	897	808	205	98	1.11
							2600	3.44	398	500	66	37	0.80
								14.94	889	870	164	81	1.02
1	3	1+06	Blend II	72	--	--	0	3.44	413	435	92	38	0.95
								14.94	926	1070	212	80	0.87
							40	3.44	445	616	84	45	0.72
								14.94	959	1110	191	93	0.86
							130	3.44	409	466	79	42	0.88
								14.94	908	1015	164	96	0.89
							326	3.44	415	530	84	43	0.78
								14.94	925	950	187	92	0.97
							650	3.44	411	380	73	43	1.08
								14.94	912	805	117	96	1.13
							1100	3.44	435	463	74	39	0.94
								14.94	948	740	169	91	1.28
							1300	3.44	147	417	63	39	0.35
								14.94	335	815	130	90	0.41
							1950	3.44	407	498	123	44	0.82
								14.94	913	855	167	104	1.07
							2600	3.44	372	550	67	37	0.68
								14.94	797	905	94	81	0.88
1	3	1+12.5	Blend II	72	--	--	0	3.44	407	502	79	36	0.81
								14.94	923	1065	162	75	0.87
							40	3.44	441	719	74	45	0.61
								14.94	959	1270	165	96	0.76

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+12.5					130	3.44	407	504	74	44	0.81
		(Cont'd)						14.94	911	932	164	98	0.98
							326	3.44	416	470	75	46	0.89
								14.94	927	825	166	95	1.12
							650	3.44	410	565	87	45	0.73
								14.94	907	1045	205	97	0.87
							1100	3.44	423	715	84	44	0.59
								14.94	922	995	163	90	0.93
							1300	3.44	393	515	73	44	0.76
								14.94	923	880	172	92	1.05
							1950	3.44	394	465	69	44	0.85
								14.94	919	1075	168	100	0.85
							2600	3.44	402	570	66	38	0.71
								14.94	894	983	146	82	0.91
1	3	1+25	Blend II	72	--	--	0	3.44	414	594	84	38	0.70
								14.94	925	985	193	76	0.94
							40	3.44	428	565	72	45	0.76
								14.94	928	910	163	99	1.02
							130	3.44	411	585	73	41	0.70
								14.94	908	960	168	97	0.95
							326	3.44	421	580	68	44	0.73
								14.94	927	1165	167	97	0.80
							650	3.44	407	580	75	44	0.70
								14.94	903	1140	189	97	0.79
							1100	3.44	428	590	75	42	0.73
								14.94	922	970	164	88	0.95

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+25 (Cont'd)					1300	3.44	406	487	66	42	0.83
								14.94	925	980	163	93	0.94
							1950	3.44	415	514	73	46	0.81
								14.94	920	895	171	101	1.03
							2600	3.44	403	633	62	37	0.64
								14.94	890	983	146	82	0.91
1	3	1+37.5	Blend II	72	--	--	0	3.44	419	474	65	37	0.88
								14.94	926	956	139	79	0.97
							40	3.44	446	556	68	46	0.80
								14.94	959	929	147	95	1.03
							130	3.44	405	435	70	44	0.93
								14.94	901	1120	144	88	0.80
							326	3.44	417	555	58	42	0.75
								14.94	916	1020	113	94	0.90
							650	3.44	321	460	68	41	0.70
								14.94	746	854	151	91	0.87
							1100	3.44	432	510	67	41	0.85
								14.94	930	795	144	88	1.17
							1300	3.44	417	560	53	39	0.74
								14.94	928	1075	121	91	0.86
							1950	3.44	383	486	57	42	0.79
								14.94	925	854	133	103	1.08
							2600	3.44	398	513	--	33	0.76
								14.94	881	915	--	80	0.96

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+44	Blend II	72	--	--	0	3.44	414	553	73	40	0.75
								14.94	915	1070	141	78	0.86
							40	3.44	433	577	65	43	0.75
								14.94	952	1030	135	91	0.92
							130	3.44	402	589	68	44	0.68
								14.94	910	985	151	95	0.92
							326	3.44	421	535	69	42	0.79
								14.94	917	1080	164	92	0.85
							650	3.44	404	485	75	42	0.83
								14.94	902	840	178	95	1.07
							1100	3.44	430	657	59	--	0.65
								14.94	941	985	137	--	0.96
							1300	3.44	161	550	54	--	0.29
								14.94	326	927	136	--	0.35
							1950	3.44	86	295	51	--	0.29
								14.94	327	844	144	--	0.39
							2600	3.44	398	550	61	--	0.72
								14.94	895	875	135	--	1.02
1	3	1+46	Blend II	72	--	--	0	3.44	414	538	59	37	0.77
								14.94	909	1105	118	77	0.82
							40	3.44	436	507	66	44	0.86
								14.94	956	868	140	93	1.10
							130	3.44	406	442	64	43	0.92
								14.94	907	870	134	89	1.04
							326	3.44	424	515	63	42	0.82
								14.94	912	1000	147	91	0.91

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+46 (Cont'd)					650	3.44	414	495	62	39	0.84
								14.94	909	880	154	97	1.03
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	400	680	--	--	0.59
								14.94	889	980	--	--	0.91
1	3	1+48	Blend II	72	--	--	0	3.44	419	537	66	38	0.78
								14.94	907	1135	144	76	0.80
							40	3.44	432	555	77	42	0.79
								14.94	952	990	157	92	0.96
							130	3.44	407	492	49	37	0.83
								14.94	913	990	150	92	0.92
							326	3.44	418	535	71	43	0.78
								14.94	910	990	167	92	0.92
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	397	485	72	49	0.82
								14.94	909	815	171	91	1.12
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	3	1+48 (Cont'd)					2600	3.44	391	607	--	--	0.64
								14.94	883	985	--	--	0.90
1	3	1+50	Blend II	72	--	--	0	3.44	412	511	66	37	0.81
								14.94	903	1080	194	78	0.84
							40	3.44	428	438	75	44	0.98
								14.94	956	912	148	91	1.05
							130	3.44	406	427	80	42	0.95
								14.94	906	884	170	91	1.02
							326	3.44	420	460	79	41	0.91
								14.94	913	870	178	91	1.05
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	403	600	79	--	0.67
								14.94	907	965	179	--	0.94
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	393	345	68	--	1.14
								14.94	884	645	153	--	1.37
1	4	1+50	Blend I	9	Blend II	63	0	3.44	412	511	66	37	0.81
								14.94	903	1080	194	78	0.84
							40	3.44	428	438	75	44	0.98
								14.94	956	912	148	91	1.05
							130	3.44	406	427	80	42	0.95
								14.94	906	884	170	91	1.02

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+50 (Cont'd)					326	3.44	420	460	79	41	0.91
								14.94	913	870	178	91	1.05
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	403	600	79	--	0.67
								14.94	907	965	179	--	0.94
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	393	345	68	--	1.14
								14.94	884	645	153	--	1.37
1	4	1+52	Blend I	9	Blend II	63	0	3.44	410	411	79	37	1.00
								14.94	907	1105	151	76	0.82
							40	3.44	441	453	88	44	0.97
								14.94	956	980	197	91	0.98
							130	3.44	400	411	69	43	0.97
								14.94	903	840	168	92	1.08
							326	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	242	370	74	40	0.65
								14.94	541	735	171	87	0.74

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+52 (Cont'd)					1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	398	395	--	--	1.01
								14.94	894	690	--	--	1.30
1	4	1+54	Blend I	9	Blend II	63	0	3.44	412	471	61	36	0.87
								14.94	910	1030	154	78	0.88
							40	3.44	436	529	80	43	0.82
								14.94	954	1060	204	93	0.90
							130	3.44	400	354	75	45	1.13
								14.94	902	886	176	93	1.02
							326	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
1	4	1+56	Blend I	9	Blend II	63	0	3.44	406	426	59	36	0.95
								14.94	905	905	--	77	1.00
							40	3.44	431	526	80	43	0.82
								14.94	952	1095	177	87	0.87

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+56 (Cont'd)					130	3.44	399	514	78	45	0.78
								14.94	901	1045	165	91	0.86
							326	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							650	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	394	343	72	39	1.15
								14.94	890	730	164	87	1.22
1	4	1+62.5	Blend I	9	Blend II	73	0	3.44	409	660	71	36	0.62
								14.94	909	1135	159	78	0.80
							40	3.44	430	501	99	45	0.86
								14.94	949	1015	206	90	0.93
							130	3.44	411	395	86	41	1.04
								14.94	912	813	201	88	1.12
							326	3.44	421	400	75	42	1.05
								14.94	924	925	170	87	1.00
							650	3.44	410	390	81	45	1.05
								14.94	921	765	191	93	1.20
							1100	3.44	173	465	75	43	0.37
								14.94	440	960	166	90	0.46

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+62.5					1300	3.44	410	560	73	41	0.73
		(Cont'd)						14.94	899	980	166	91	0.92
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	395	460	68	37	0.86
								14.94	889	935	157	87	0.95
1	4	1+75	Blend I	9	Blend II	63	0	3.44	419	414	76	38	1.01
								14.94	918	930	162	82	0.99
							40	3.44	430	385	83	45	1.12
								14.94	951	983	186	97	0.97
							130	3.44	404	473	84	45	0.85
								14.94	907	928	196	98	0.98
							326	3.44	418	395	82	41	1.06
								14.94	922	675	181	91	1.37
							650	3.44	414	460	80	41	0.90
								14.94	920	1013	186	93	0.91
							1100	3.44	436	460	74	45	0.95
								14.94	921	795	162	89	1.16
							1300	3.44	186	465	76	44	0.40
								14.94	461	875	180	94	0.53
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	400	410	71	--	0.98
								14.94	894	800	167	--	1.12
1	4	1+87.5	Blend I	9	Blend II	63	0	3.44	417	539	67	35	0.77
								14.94	914	1145	139	74	0.80

(Continued)

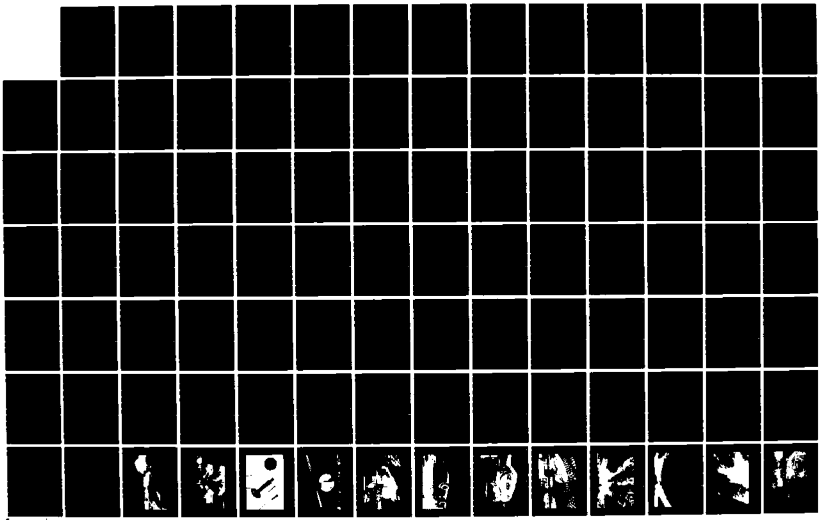
Table A18 (Continued)

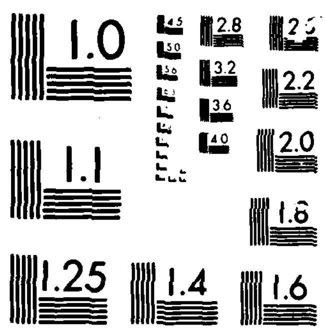
Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+87.5 (Cont'd)					40	3.44	320	536	77	41	0.60
								14.94	757	1105	171	86	0.69
							130	3.44	396	466	72	42	0.85
								14.94	909	1060	180	92	0.86
							326	3.44	421	465	73	40	0.91
								14.94	923	890	159	83	1.04
							650	3.44	415	430	87	42	0.97
								14.94	923	915	200	93	1.01
							1100	3.44	387	425	71	37	0.91
								14.94	740	745	170	80	0.99
							1300	3.44	193	495	71	--	0.39
								14.94	429	925	169	--	0.46
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	397	490	72	--	0.81
								14.94	892	840	179	--	1.06
1	4	1+94	Blend I	9	Blend II	63	0	3.44	409	456	72	41	0.90
								14.94	912	1125	152	77	0.81
							40	3.44	432	495	78	42	0.87
								14.94	944	1045	181	121	0.90
							130	3.44	406	612	76	40	0.66
								14.94	907	1175	194	93	0.77
							326	3.44	415	620	77	43	0.67
								14.94	911	1295	182	--	0.70
							650	3.44	411	467	84	44	0.88
								14.94	910	927	185	95	0.98

(Continued)

AD-A167 671 CORRELATION OF NONDESTRUCTIVE PAVEMENT EVALUATION TEST RESULTS WITH RESUL..(U) ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS GEOTE.. D R ALEXANDER 4/6

UNCLASSIFIED FEB 86 WES/TR/GL-86-1-VOL-2 F/G 14/2 NL





MICROCOP' CHART

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+94 (Cont'd)					1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	398	440	--	--	0.90
								14.94	891	905	--	--	0.98
1	4	1+96	Blend I	9	Blend II	63	0	3.44	395	462	77	38	0.85
								14.94	711	1095	158	79	0.65
							40	3.44	423	657	93	47	0.64
								14.94	936	1265	238	100	0.74
							130	3.44	239	443	76	43	0.54
								14.94	484	1035	180	94	0.47
							326	3.44	413	575	80	45	0.72
								14.94	918	1235	183	96	0.74
							650	3.44	405	570	72	43	0.71
								14.94	902	1190	97	94	0.76
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pres-sure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	1+98	Blend I	9	Blend II	63	0	3.44	401	554	86	41	0.72
								14.94	903	1320	177	87	0.68
							40	3.44	421	613	64	48	0.69
								14.94	933	1265	119	106	0.74
							130	3.44	404	506	172	47	0.80
								14.94	802	1065	176	107	0.75
							326	3.44	416	590	187	49	0.70
								14.94	914	1160	222	108	0.79
							650	3.44	403	695	88	47	0.58
								14.94	897	1300	148	102	0.69
							1100	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1300	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
1	4	2+00	Blend I	9	Blend II	63	0	3.44	397	534	71	44	0.74
								14.94	904	1573	181	95	0.57
							40	3.44	423	724	108	48	0.58
								14.94	930	1387	254	110	0.67
							130	3.44	402	438	99	50	0.92
								14.94	842	1060	263	114	0.79
							326	3.44	363	475	111	49	0.76
								14.94	766	1165	268	113	0.66

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	4	2+00 (Cont'd)					650	3.44	393	715	103	49	0.55
								14.94	922	1535	249	110	0.60
							1100	3.44	428	525	111	46	0.82
								14.94	920	1105	264	103	0.83
							1300	3.44	--	570	191	53	--
								14.94	--	1210	361	119	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
							2600	3.44	401	460	92	47	0.87
								14.94	892	940	216	99	0.95
1	5	2+00	Silt	72	--	--	0	3.44	397	534	71	44	0.74
								14.94	904	1573	181	95	0.57
							40	3.44	423	724	108	48	0.58
								14.94	930	1387	254	110	0.67
							130	3.44	402	438	99	50	0.92
								14.94	842	1060	263	114	0.79
							326	3.44	363	475	111	49	0.76
								14.94	766	1165	268	113	0.66
							650	3.44	393	715	103	49	0.55
								14.94	922	1535	249	110	0.60
							1100	3.44	428	525	111	46	0.82
								14.94	920	1105	264	103	0.83
							1300	3.44	--	570	191	53	--
								14.94	--	1210	361	119	--
							1950	3.44	--	--	--	--	--
								14.94	--	--	--	--	--

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+00					2600	3.44	401	460	92	47	0.87
		(Cont'd)						14.94	892	940	216	99	0.95
1	5	2+02	Silt	72	--	--	0	3.44	406	493	64	46	0.82
								14.94	925	1380	205	95	0.67
							40	3.44	429	508	114	51	0.84
								14.94	944	1155	268	112	0.82
							130	3.44	404	526	104	47	0.77
								14.94	910	1260	272	112	0.72
							326	3.44	417	555	112	50	0.75
								14.94	921	1180	273	112	0.78
							650	3.44	409	470	114	48	0.87
								14.94	912	1100	280	112	0.83
							1100	3.44	427	530	110	48	0.81
								14.94	916	1075	261	107	0.85
							1300	3.44	120	565	101	47	0.21
								14.94	315	1205	258	113	0.26
							1950	3.44	373	516	126	51	0.72
								14.94	892	1250	325	118	0.71
							2600	3.44	399	420	87	42	0.95
								14.94	795	987	221	93	0.81
1	5	2+04	Silt	72	--	--	0	3.44	421	670	97	41	0.63
								14.94	925	1595	212	94	0.58
							40	3.44	417	588	116	50	0.71
								14.94	939	1570	284	114	0.60
							130	3.44	411	598	114	46	0.69
								14.94	909	1375	288	118	0.66

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+04 (Cont'd)					326	3.44	411	635	112	48	0.65
								14.94	912	1445	296	114	0.63
							650	3.44	409	635	103	47	0.64
								14.94	906	1447	278	115	0.63
							1100	3.44	432	505	112	50	0.86
								14.94	926	1145	281	113	0.81
							1300	3.44	63	505	99	47	0.12
								14.94	113	1165	260	115	0.10
							1950	3.44	329	556	147	55	0.59
								14.94	508	1395	348	128	0.36
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
1	5	2+06	Silt	72	--	--	0	3.44	420	715	93	44	0.59
								14.94	920	1740	206	95	0.53
							40	3.44	424	707	120	50	0.60
								14.94	939	1570	284	114	0.60
							130	3.44	408	705	111	49	0.58
								14.94	902	1530	289	118	0.59
							326	3.44	411	500	113	51	0.82
								14.94	917	1255	295	117	0.73
							650	3.44	406	693	99	78	0.59
								14.94	910	1360	283	118	0.67
							1100	3.44	434	510	126	52	0.85
								14.94	920	1130	308	115	0.81
							1300	3.44	114	690	104	45	0.17
								14.94	283	1655	307	112	0.17

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+06 (Cont'd)					1950	3.44	386	495	155	39	0.78
								14.94	930	1320	360	135	0.70
							2600	3.44	--	--	--	--	--
								14.94	--	--	--	--	--
1	5	2+12.5	Silt	72	--	--	0	3.44	415	870	97	43	0.48
								14.94	919	2100	233	102	0.44
							40	3.44	417	744	123	58	0.56
								14.94	935	1760	290	129	0.53
							130	3.44	408	669	114	49	0.61
								14.94	903	1545	321	129	0.58
							326	3.44	406	575	117	53	0.71
								14.94	907	1370	302	127	0.66
							650	3.44	408	665	117	51	0.61
								14.94	914	1660	320	125	0.55
							1100	3.44	426	735	114	53	0.58
								14.94	911	1535	292	121	0.59
							1300	3.44	406	600	117	53	0.68
								14.94	923	1230	307	127	0.75
							1950	3.44	345	850	142	90	0.41
								14.94	646	1855	366	153	0.35
							2600	3.44	387	783	90	--	0.49
								14.94	870	1600	246	--	0.54
1	5	2+25	Silt	72	--	--	0	3.44	407	975	93	47	0.42
								14.94	907	2250	215	102	0.40
							40	3.44	410	778	128	55	0.53
								14.94	935	1703	305	127	0.55

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+25 (Cont'd)					130	3.44	391	681	97	47	0.57
								14.94	885	1635	286	126	0.54
							326	3.44	408	660	127	59	0.62
								14.94	913	1560	313	132	0.59
							650	3.44	404	640	109	50	0.63
								14.94	914	1513	299	127	0.60
							1100	3.44	428	730	121	54	0.59
								14.94	913	1490	292	123	0.61
							1300	3.44	409	710	116	56	0.58
								14.94	921	1685	310	137	0.55
							1950	3.44	367	705	128	59	0.52
								14.94	897	1690	356	143	0.53
							2600	3.44	392	535	91	45	0.73
								14.94	875	1357	245	107	0.64
1	5	2+37.5	Silt	72	--	--	0	3.44	422	750	112	46	0.56
								14.94	913	1720	238	94	0.53
							40	3.44	418	747	118	49	0.56
								14.94	937	1690	297	119	0.55
							130	3.44	406	567	104	48	0.72
								14.94	907	1425	291	120	0.64
							326	3.44	408	695	123	50	0.59
								14.94	914	1480	300	119	0.62
							650	3.44	399	683	111	45	0.58
								14.94	900	1407	298	116	0.64
							1100	3.44	432	640	109	57	0.68
								14.94	920	1335	274	121	0.69

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+37.5 (Cont'd)					1300	3.44	408	555	119	51	0.74
								14.94	930	1305	323	124	0.71
							1950	3.44	428	645	119	54	0.66
								14.94	945	1350	323	132	0.70
							2600	3.44	403	465	89	42	0.87
								14.94	890	1220	226	99	0.73
1	5	2+44	Silt	72	--	--	0	3.44	405	710	95	39	0.57
								14.94	912	1783	211	91	0.51
							40	3.44	412	763	120	51	0.54
								14.94	929	1635	288	119	0.57
							130	3.44	407	653	117	49	0.62
								14.94	906	1505	287	117	0.60
							326	3.44	402	595	109	49	0.68
								14.94	914	1485	283	117	0.62
							650	3.44	400	545	116	49	0.73
								14.94	913	1300	295	116	0.70
							1100	3.44	425	565	104	48	0.75
								14.94	917	1240	261	111	0.74
							1300	3.44	402	595	98	48	0.68
								14.94	922	1400	279	121	0.66
							1950	3.44	412	625	111	52	0.66
								14.94	928	1405	299	125	0.66
							2600	3.44	403	470	87	43	0.86
								14.94	900	1105	222	98	0.81
1	5	2+46	Silt	72	--	--	0	3.44	408	760	98	38	0.54
								14.94	908	1940	220	92	0.47

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+46 (Cont'd)					40	3.44	413	600	107	47	0.69
								14.94	926	1530	283	119	0.61
							130	3.44	402	740	104	46	0.54
								14.94	903	1655	285	117	0.55
							326	3.44	405	455	103	47	0.89
								14.94	920	1210	279	113	0.76
							650	3.44	400	575	113	47	0.70
								14.94	908	1320	295	118	0.69
							1100	3.44	433	525	117	53	0.82
								14.94	924	1145	277	113	0.81
							1300	3.44	407	750	118	56	0.54
								14.94	926	1570	309	122	0.59
							1950	3.44	259	755	116	43	0.34
								14.94	580	1565	309	131	0.37
							2600	3.44	401	560	84	44	0.72
								14.94	888	1295	204	78	0.69
1	5	2+48	Silt	72	--	--	0	3.44	414	910	95	43	0.45
								14.94	901	1995	225	91	0.45
							40	3.44	415	674	114	52	0.62
								14.94	925	1670	291	117	0.55
							130	3.44	402	550	103	47	0.73
								14.94	906	1370	279	114	0.66
							326	3.44	407	520	116	49	0.78
								14.94	922	1300	284	117	0.71
							650	3.44	408	563	110	47	0.72
								14.94	910	1280	287	115	0.71

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
1	5	2+48 (Cont'd)					1100	3.44	435	545	111	48	0.80
								14.94	932	1155	277	115	0.81
							1300	3.44	407	750	110	50	0.54
								14.94	914	1535	297	125	0.60
							1950	3.44	373	770	120	54	0.48
								14.94	917	1570	317	127	0.58
							2600	3.44	394	445	83	44	0.89
								14.94	891	1100	218	99	0.81
1	5	2+50	Silt	72	--	--	0	3.44	402	855	103	42	0.47
								14.94	905	2060	246	90	0.44
							40	3.44	409	686	105	45	0.60
								14.94	927	1570	268	107	0.59
							130	3.44	398	628	103	47	0.63
								14.94	901	1445	267	111	0.62
							326	3.44	405	610	111	47	0.66
								14.94	912	1420	282	108	0.64
							650	3.44	418	605	107	48	0.69
								14.94	909	1290	282	113	0.76
							1100	3.44	426	555	111	48	0.77
								14.94	926	1235	272	109	0.75
							1300	3.44	407	540	103	44	0.75
								14.94	922	1310	286	116	0.70
							1950	3.44	377	610	113	52	0.62
								14.94	902	1415	318	127	0.64
							2600	3.44	393	545	85	44	0.72
								14.94	888	1185	226	101	0.75

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+00	Cement	29	Heavy	43	0	3.44	--	--	--	--	--
			Stab.		Clay			14.94	911	510	174	103	1.79
			Blend I				40	3.44	420	287	99	76	1.46
								14.94	934	613	250	150	1.52
							130	3.44	412	410	102	65	1.00
								14.94	818	892	253	138	0.92
							326	3.44	432	276	113	71	1.57
								14.94	943	645	275	141	1.46
							650	3.44	459	364	126	72	1.26
								14.94	997	763	306	154	1.31
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	438	419	105	64	1.05
								14.94	943	797	258	135	1.18
2	1	0+02	Cement	29	Heavy	43	0	3.44	--	--	--	--	--
			Stab.		Clay			14.94	916	180	126	100	5.09
			Blend I				40	3.44	426	229	40	60	1.86
								14.94	946	500	155	144	1.89
							130	3.44	428	293	71	65	1.46
								14.94	939	558	200	144	1.68
							326	3.44	429	352	82	69	1.22
								14.94	954	645	275	141	1.48
							650	3.44	467	262	--	78	1.78
								14.94	999	647	--	168	1.54

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+02 (Cont'd)					1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	436	430	--	70	1.01
								14.94	936	683	--	144	1.37
2	1	0+04	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	907	511	178	108	1.77
							40	3.44	426	299	87	62	1.42
								14.94	934	566	240	144	1.65
							130	3.44	425	366	104	64	1.16
								14.94	935	700	280	144	1.34
							326	3.44	433	314	115	66	1.38
								14.94	946	585	298	149	1.62
							650	3.44	469	337	121	79	1.39
								14.94	997	617	212	170	1.62
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	406	272	118	73	1.49
								14.94	814	604	280	153	1.35
2	1	0+06	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	916	263	154	102	3.48
							40	3.44	421	235	98	56	1.79
								14.94	932	476	244	135	1.96
							130	3.44	427	170	102	56	2.51
								14.94	950	393	264	129	2.42
							326	3.44	429	249	114	62	1.72
								14.94	939	522	278	140	1.80

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+06 (Cont'd)					650	3.44	462	285	141	75	1.62
								14.94	999	590	328	161	1.69
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	431	207	126	71	2.08
								14.94	924	521	296	151	1.77
2	1	0+12.5	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	408	112	68	42	3.64
								14.94	925	250	157	104	3.70
							40	3.44	422	142	82	51	2.97
								14.94	941	325	210	129	2.90
							130	3.44	431	147	89	56	2.93
								14.94	943	336	227	134	2.81
							326	3.44	423	161	93	59	2.63
								14.94	938	376	243	138	2.49
							650	3.44	461	235	123	72	1.96
								14.94	987	524	306	151	1.88
							1300	3.44	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	431	230	120	65	1.87
								14.94	923	512	288	139	1.80
2	1	0+25	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	923	303	166	89	3.05
							40	3.44	424	184	104	56	2.30
								14.94	952	402	261	137	2.37

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+25 (Cont'd)					130	3.44	428	219	115	62	1.95
								14.94	940	476	262	140	1.97
							326	3.44	430	210	113	64	2.05
								14.94	949	478	272	147	1.99
							650	3.44	459	226	122	71	2.03
								14.94	999	476	293	155	2.10
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	431	162	104	65	2.66
								14.94	899	429	241	140	2.10
2	1	0+37.5	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	408	94	68	46	4.34
								14.94	929	218	155	105	4.26
							40	3.44	420	143	84	52	2.94
								14.94	941	332	213	130	2.83
							130	3.44	409	136	83	52	3.01
								14.94	931	325	214	129	2.86
							326	3.44	418	250	116	56	1.67
								14.94	942	523	287	142	1.80
							650	3.44	462	184	97	59	2.51
								14.94	997	382	233	136	2.61
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	430	171	107	63	2.51
								14.94	917	424	260	137	2.16
2	1	0+44	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	925	258	186	129	3.59

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+44 (Cont'd)					40	3.44	423	247	113	49	1.71
								14.94	927	507	266	129	1.82
							130	3.44	412	228	117	57	1.81
								14.94	924	499	288	144	1.85
							326	3.44	418	250	116	56	1.67
								14.94	942	523	287	142	1.80
							650	3.44	449	222	127	67	2.02
								14.94	985	534	304	150	1.84
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	425	273	129	59	1.56
								14.94	919	570	306	138	1.61
2	1	0+46	Cement Stab. Blend I	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	918	326	251	191	2.82
							40	3.44	422	228	110	59	1.85
								14.94	948	495	259	133	1.92
							130	3.44	417	239	148	56	1.74
								14.94	941	505	314	131	1.86
							326	3.44	418	216	125	57	1.94
								14.94	938	498	287	133	1.88
							650	3.44	441	255	108	66	1.73
								14.94	984	569	266	140	1.73
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	413	305	112	66	1.35
								14.94	918	648	272	139	1.42

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+48	Cement	29	Heavy	43	0	--	--	--	--	--	--
			Stab.		Clay			--	920	478	214	97	1.92
			Blend I				40	3.44	420	255	121	54	1.65
								14.94	931	534	289	140	1.74
							130	3.44	394	261	120	55	1.51
								14.94	907	560	295	139	1.62
							326	3.44	415	277	124	55	1.50
								14.94	939	562	310	139	1.67
							650	3.44	444	265	143	72	1.68
								14.94	992	588	329	152	1.69
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	412	309	132	60	1.33
								14.94	917	682	324	143	1.34
2	1	0+50	Cement	29	Heavy	43	0	--	--	--	--	--	--
			Stab.		Clay			--	906	448	219	98	2.02
			Blend I				40	3.44	411	330	177	60	1.25
								14.94	935	769	440	138	1.22
							130	3.44	423	462	221	42	0.92
								14.94	925	854	448	139	1.08
							326	3.44	407	631	238	63	0.65
								14.94	917	1135	512	165	0.81
							650	3.44	436	349	219	66	1.25
								14.94	967	666	459	159	1.45
							1300	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	1	0+50 (Cont'd)					2600	3.44	413	461	194	55	0.90
								14.94	910	871	407	140	1.04
2	2	0+50	TRANSITION				0	--	--	--	--	--	--
								--	906	448	219	98	2.02
							40	3.44	411	330	177	60	1.25
								14.94	935	769	440	138	1.22
							130	3.44	423	462	221	42	0.92
								14.94	925	854	448	139	1.08
							326	3.44	407	631	238	63	0.65
								14.94	917	1135	512	165	0.81
							650	3.44	436	349	219	66	1.25
								14.94	967	666	459	159	1.45
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	413	461	194	55	0.90
								14.94	910	871	407	140	1.04
2	2	0+52.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	409	297	123	50	1.38
								14.94	919	607	250	99	1.51
							40	3.44	414	741	340	103	0.56
								14.94	940	1415	642	202	0.66
							130	3.44	427	1045	536	150	0.41
								14.94	930	1650	885	262	0.56
							326	3.44	403	1080	512	98	0.37
								14.94	917	1815	858	185	0.51
							650	3.44	432	1210	541	122	0.36
								14.94	952	1965	922	197	0.48

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+52.25 (Cont'd)					1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	387	2040	770	86	0.19
								14.94	889	2377	1210	167	0.37
2	2	0+53.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	411	220	106	45	1.87
								14.94	925	448	218	102	2.06
							40	3.44	413	710	311	81	0.58
								14.94	946	1230	576	181	0.77
							130	3.44	417	890	346	78	0.47
								14.94	928	1510	603	152	0.61
							326	3.44	420	760	226	63	0.55
								14.94	936	1270	438	131	0.74
							650	3.44	447	897	220	50	0.50
								14.94	958	1475	420	113	0.65
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	405	960	142	50	0.42
								14.94	910	1593	315	112	0.57
2	2	0+55	Cement Stab. Blend II	12	Blend II	60	0	3.44	406	153	86	46	2.65
								14.94	921	328	194	104	2.81
							40	3.44	413	710	311	81	0.58
								14.94	946	1230	576	181	0.77
							130	3.44	415	351	112	53	1.18
								14.94	939	703	249	113	1.34
							326	3.44	422	348	101	48	1.21
								14.94	939	640	227	107	1.47

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+55 (Cont'd)					650	3.44	433	303	99	52	1.43
								14.94	970	607	235	110	1.60
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	401	315	82	47	1.27
								14.94	915	873	205	99	1.05
2	2	0+56.75	Cement Stab. Blend II	12	Blend II	60	0	3.44	408	164	79	41	2.49
								14.94	566	186	104	58	3.04
							40	3.44	416	228	112	59	1.82
								14.94	939	628	270	141	1.50
							130	3.44	415	351	112	53	1.18
								14.94	939	703	249	113	1.34
							326	3.44	417	247	99	62	1.69
								14.94	937	508	245	131	1.84
							650	3.44	441	265	112	49	1.66
								14.94	989	540	251	123	1.83
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	398	257	74	59	1.55
								14.94	902	495	195	117	1.82
2	2	0+58.50	Cement Stab. Blend II	12	Blend II	60	0	3.44	410	160	86	50	2.56
								14.94	926	293	183	98	3.16
							40	3.44	417	247	163	89	1.69
								14.94	927	536	382	206	1.73
							130	3.44	404	293	177	80	1.38
								14.94	912	622	396	182	1.47

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+58.50 (Cont'd)					326	3.44	421	290	213	79	1.45
								14.94	943	614	465	186	1.54
							650	3.44	436	349	219	66	1.25
								14.94	967	666	459	159	1.45
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	354	384	291	58	0.92
								14.94	669	736	532	130	0.91
2	2	0+60.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	399	184	94	44	2.17
								14.94	913	370	204	98	2.47
							40	3.44	414	464	276	100	0.89
								14.94	929	929	570	207	1.00
							130	3.44	418	661	275	88	0.63
								14.94	915	1115	449	160	0.82
							326	3.44	413	649	349	77	0.64
								14.94	930	1150	613	155	0.81
							650	3.44	439	859	484	79	0.51
								14.94	954	1315	818	139	0.72
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	400	995	511	107	0.40
								14.94	903	2055	886	263	0.44
2	2	0+61.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	402	177	93	43	2.27
								14.94	913	392	205	93	2.33
							40	3.44	419	562	296	95	0.75
								14.94	940	986	544	187	0.95

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+61.25 (Cont'd)					130	3.44	412	631	264	58	0.65
								14.94	920	1090	419	117	0.84
							326	3.44	412	725	262	45	0.57
								14.94	933	1150	468	102	0.81
							650	3.44	433	825	268	46	0.52
								14.94	967	1345	462	107	0.72
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	407	1325	333	36	0.31
								14.94	901	1940	541	71	0.46
2	2	0+62.25	Cement Stab. Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	3.44	408	515	209	61	0.79
								14.94	929	932	394	140	1.00
							130	3.44	415	643	213	47	0.65
								14.94	909	1025	381	109	0.89
							326	3.44	422	593	170	49	0.71
								14.94	937	960	325	110	0.98
							650	3.44	428	444	128	52	0.96
								14.94	973	840	277	114	1.16
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	399	772	129	49	0.52
								14.94	902	1320	267	102	0.68
2	2	0+63.93	Cement Stab. Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+63.93 (Cont'd)					40	3.44	411	304	128	56	1.35
								14.94	936	644	292	140	1.45
							130	3.44	412	291	97	51	1.42
								14.94	927	545	220	113	1.70
							326	3.44	424	303	101	47	1.40
								14.94	935	60	236	106	1.00
							650	3.44	428	239	92	53	1.79
								14.94	969	486	219	109	1.99
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	398	270	130	47	1.47
								14.94	903	576	130	102	1.57
2	2	0+65.60	Cement Stab. Blend II	*12*	*Blend II*	*60*	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	3.44	407	201	114	61	2.02
								14.94	926	533	290	133	1.74
							130	3.44	411	251	114	53	1.64
								14.94	934	547	268	118	1.71
							326	3.44	423	204	128	55	2.07
								14.94	949	491	307	130	1.93
							650	3.44	431	281	109	48	1.53
								14.94	962	567	247	107	1.70
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	397	227	103	53	1.75
								14.94	912	503	219	125	1.81

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+67.28	Cement	12	Blend II	60	0	--	--	--	--	--	--
			Stab.					--	--	--	--	--	--
			Blend II				40	3.44	410	368	226	91	1.11
								14.94	932	664	459	215	1.40
							130	3.44	429	459	299	131	0.93
								14.94	934	868	607	292	1.08
							326	3.44	417	403	265	120	1.03
								14.94	941	813	572	287	1.16
							650	3.44	419	341	263	112	1.23
								14.94	951	760	568	236	1.25
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	253	361	265	80	0.70
								14.94	652	705	514	203	0.92
2	2	0+68.96	Cement	12	Blend II	60	0	--	--	--	--	--	--
			Stab.					--	--	--	--	--	--
			Blend II				40	3.44	409	537	317	145	0.76
								14.94	925	1005	681	332	0.92
							130	3.44	419	770	486	233	0.54
								14,94	922	1380	960	484	0.67
							326	3.44	416	819	541	253	0.51
								14.94	919	1395	1040	491	0.66
							650	3.44	429	896	654	275	0.48
								14.94	939	1485	1205	490	0.63
							1300	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+68.96 (Cont'd)					2600	3.44	274	1270	859	336	0.22
								14.94	740	2440	1680	598	0.30
2	2	0+70.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	409	211	123	53	1.94
								14.94	922	438	266	116	2.11
							40	3.44	409	725	402	114	0.56
								14.94	917	1460	791	226	0.63
							130	3.44	419	1055	501	88	0.40
								14.94	913	1825	852	173	0.50
							326	3.44	404	1120	628	109	0.36
								14.94	909	1990	1075	199	0.46
							650	3.44	412	1345	632	60	0.31
								14.94	920	2205	1080	123	0.42
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	377	1680	719	72	0.22
								14.94	844	2780	1200	132	0.30
2	2	0+71.50	Cement Stab. Blend II	12	Blend II	60	0	3.44	404	186	108	48	2.17
								14.94	920	400	224	107	2.30
							40	3.44	410	667	299	74	0.61
								14.94	921	1230	544	157	0.75
							130	3.44	417	822	249	53	0.51
								14.94	926	1435	510	120	0.65
							326	3.44	410	931	225	61	0.44
								14.94	911	1490	460	148	0.61
							650	3.44	425	635	149	58	0.67
								14.94	953	1155	339	132	0.83

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+71.50					1300	--	--	--	--	--	--
		(Cont'd)						--	--	--	--	--	--
							2600	3.44	391	1010	171	58	0.39
								14.94	876	1700	396	124	0.52
2	2	0+73.10	Cement	12	Blend II	60	0	3.44	407	140	84	47	2.91
			Stab.					14.94	918	290	183	105	3.17
			Blend II				40	3.44	405	384	133	56	1.05
								14.94	917	720	288	135	1.27
							130	3.44	421	280	101	57	1.50
								14.94	935	560	247	129	1.67
							326	3.44	422	440	115	60	0.96
								14.94	924	854	269	139	1.08
							650	3.44	426	317	84	65	1.34
								14.94	951	642	225	130	1.48
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	402	303	90	56	1.33
								14.94	898	612	193	120	1.47
2	2	0+74.75	Cement	12	Blend II	60	0	3.44	398	156	88	45	2.55
			Stab.					14.94	919	285	184	102	3.22
			Blend II				40	3.44	409	247	275	149	1.66
								14.94	919	519	275	149	1.77
							130	3.44	430	228	147	78	1.89
								14.94	944	487	321	173	1.94
							326	3.44	432	286	112	66	1.51
								14.94	950	600	293	167	1.58

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+74.75					650	3.44	424	248	111	72	1.71
		(Cont'd)						14.94	952	533	295	162	1.79
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	404	219	102	69	1.84
								14.94	905	507	248	163	1.79
2	2	0+76.35	Cement Stab. Blend II	12	Blend II	60	0	3.44	394	135	85	41	2.92
								14.94	924	292	191	98	3.16
							40	3.44	402	236	146	70	1.70
								14.94	919	505	364	185	1.82
							130	3.44	414	332	234	75	1.25
								14.94	928	682	497	186	1.36
							326	3.44	423	350	287	83	1.21
								14.94	944	774	590	197	1.22
							650	3.44	419	388	310	63	1.08
								14.94	934	801	612	131	1.17
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	397	449	420	92	0.88
								14.94	893	916	737	200	0.97
2	2	0+77.96	Cement Stab. Blend II	12	Blend II	60	0	3.44	401	140	84	41	2.86
								14.94	921	294	178	93	3.13
							40	3.44	404	451	246	96	0.90
								14.94	912	859	496	207	1.06
							130	3.44	407	622	311	112	0.65
								14.94	926	1060	592	227	0.87

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+77.96 (Cont'd)					326	3.44	419	688	358	104	0.61
								14.94	926	1440	700	243	0.64
							650	3.44	422	873	405	150	0.48
								14.94	945	1480	733	295	0.64
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	401	1103	547	183	0.36
								14.94	893	1590	673	283	0.56
2	2	0+79.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	397	158	85	43	2.51
								14.94	913	331	179	96	2.76
							40	3.44	403	483	227	77	0.83
								14.94	913	906	451	169	1.01
							130	3.44	419	685	314	95	0.61
								14.94	928	1130	545	179	0.82
							326	3.44	424	894	394	91	0.47
								14.94	903	1325	671	181	0.68
							650	3.44	418	770	279	52	0.54
								14.94	953	1320	522	114	0.72
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	406	1163	453	68	0.35
								14.94	887	1635	708	110	0.54
2	2	0+80.54	Cement Stab. Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	3.44	404	381	167	62	1.06
								14.94	921	745	353	145	1.24

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+80.54 (Cont'd)					130	3.44	406	522	205	61	0.78
								14.94	915	960	409	139	0.95
							326	3.44	417	583	206	64	0.72
								14.94	922	1050	424	143	0.88
							650	3.44	417	343	119	41	1.22
								14.94	945	704	288	121	1.34
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	392	730	149	52	0.54
								14.94	892	1345	314	117	0.66
2	2	0+82.07	Cement Stab. Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	3.44	409	188	108	52	2.18
								14.94	928	428	258	129	2.17
							130	3.44	411	267	129	57	1.54
								14.94	929	573	280	123	1.62
							326	3.44	421	279	99	58	1.51
								14.94	941	588	255	128	1.60
							650	3.44	422	228	101	51	1.85
								14.94	953	572	248	109	1.67
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	379	290	105	55	1.31
								14.94	786	627	292	119	1.25
2	2	0+83.60	Cement Stab. Blend II	12	Blend II	60	0	3.44	416	117	83	48	3.56
								14.94	943	264	193	114	3.57

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+83.60 (Cont'd)					40	3.44	409	158	95	54	3.22
								14.94	936	387	244	133	2.42
							130	3.44	414	257	106	56	1.61
								14.94	914	512	234	123	1.79
							326	3.44	428	244	109	59	1.75
								14.94	448	541	267	135	1.75
							650	3.44	426	219	126	66	1.95
								14.94	961	513	293	153	1.87
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	392	262	84	53	1.50
								14.94	898	512	217	114	1.75
2	2	0+85.13	Cement Stab. Blend II	12	Blend II	60	0	3.44	412	126	87	48	3.27
								14.94	932	285	203	114	3.27
							40	3.44	404	174	122	75	2.32
								14.94	927	443	314	173	2.09
							130	3.44	420	234	163	80	1.79
								14.94	936	515	371	203	1.82
							326	3.44	426	301	191	85	1.42
								14.94	929	656	440	227	1.42
							650	3.44	419	287	231	116	1.46
								14.94	960	670	529	248	1.43
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	393	334	215	93	1.18
								14.94	892	677	487	219	1.32

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+86.66	Cement Stab. Blend II	12	Blend II	60	0	3.44	409	124	88	52	3.03
								14.94	938	288	211	122	3.26
							40	3.44	407	245	188	94	1.66
								14.94	923	608	465	233	1.52
							130	3.44	412	440	299	122	0.94
								14.94	921	905	676	300	1.02
							326	3.44	241	549	360	149	0.44
								14.94	678	1150	840	364	0.59
							650	3.44	417	783	517	220	0.53
								14.94	933	1450	1060	443	0.64
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	396	950	560	313	0.42
								14.94	873	1560	1280	688	0.56
2	2	0+88.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	395	158	107	58	2.50
								14.94	912	353	245	142	2.58
							40	3.44	402	448	222	75	0.90
								14.94	913	977	547	185	0.93
							130	3.44	415	760	394	109	0.55
								14.94	912	1440	806	231	0.63
							326	3.44	407	1345	571	112	0.30
								14.94	880	2215	1050	215	0.40
							650	3.44	406	1710	788	102	0.24
								14.94	887	2540	1210	189	0.35
							1300	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+88.25 (Cont'd)					2600	3.44	302	2570	1170	132	0.12
								14.94	681	2290	2020	150	0.30
2	2	0+89.83	Cement Stab. Blend II	12	Blend II	60	0	3.44	387	160	98	54	2.42
								14.94	909	376	252	142	2.42
							40	3.44	401	416	176	52	0.96
								14.94	925	851	393	144	1.09
							130	3.44	409	724	215	54	0.56
								14.94	921	1320	444	134	0.70
							326	3.44	416	1165	282	60	0.36
								14.94	900	1825	519	142	0.49
							650	3.44	423	1430	237	55	0.30
								14.94	928	2230	472	132	0.42
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	364	1970	170	41	0.18
								14.94	847	2705	185	98	0.31
2	2	0+91.29	Cement Stab. Blend II	12	Blend II	60	0	3.44	392	215	140	73	1.82
								14.94	910	413	261	147	2.20
							40	3.44	405	259	113	52	1.56
								14.94	923	574	272	122	1.61
							130	3.44	418	345	120	52	1.21
								14.94	928	686	277	117	1.35
							326	3.44	424	459	115	52	0.92
								14.94	938	875	267	127	1.07
							650	3.44	415	300	102	60	1.38
								14.94	941	622	269	139	1.51

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+91.29 (Cont'd)					1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	234	430	110	55	0.54
								14.94	533	1005	265	138	0.53
2	2	0+92.75	Cement Stab. Blend II	12	Blend II	60	0	3.44	411	182	122	67	2.50
								14.94	911	403	263	122	2.16
							40	3.44	402	196	94	45	2.05
								14.94	919	457	254	120	2.01
							130	3.44	416	199	104	52	2.09
								14.94	923	493	255	116	1.87
							326	3.44	415	257	117	59	1.61
								14.94	935	569	288	139	1.64
							650	3.44	424	369	138	37	1.15
								14.94	956	617	299	98	1.55
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	388	220	95	34	1.76
								14.94	897	570	255	70	1.57
2	2	0+94.21	Cement Stab. Blend II	12	Blend II	60	0	3.44	393	212	117	46	1.85
								14.94	916	380	218	104	2.41
							40	3.44	399	198	126	57	2.02
								14.94	921	487	323	138	1.89
							130	3.44	407	245	137	56	1.66
								14.94	914	568	373	140	1.61
							326	3.44	418	442	160	52	0.95
								14.94	942	749	360	153	1.26

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+94.21 (Cont'd)					650	3.44	295	466	143	44	0.63
								14.94	709	864	320	109	0.82
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	381	345	80	35	1.01
								14.94	901	740	220	67	1.22
2	2	0+95.67	Cement Stab. Blend II	12	Blend II	60	0	3.44	388	121	64	42	3.21
								14.94	556	191	106	58	2.91
							40	3.44	408	326	172	86	1.25
								14.94	926	619	354	184	1.50
							130	3.44	406	357	204	91	1.14
								14.94	921	799	432	196	1.15
							326	3.44	426	536	215	85	0.79
								14.94	928	905	447	200	1.03
							650	3.44	424	537	269	91	0.79
								14.94	949	974	497	181	0.97
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	379	370	115	57	1.02
								14.94	803	790	255	114	1.02
2	2	0+97.25	Cement Stab. Blend II	12	Blend II	60	0	3.44	397	102	--	37	3.89
								14.94	920	235	79	87	3.91
							40	3.44	406	338	194	94	1.20
								14.94	927	649	391	200	1.42
							130	3.44	409	434	113	53	0.94
								14.94	928	822	119	112	1.13

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	2	0+97.25 (Cont'd)					326	3.44	421	499	259	47	0.84
								14.94	933	918	470	99	1.02
							650	3.44	423	499	63	31	0.85
								14.94	959	951	85	69	1.01
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	387	390	235	43	0.99
								14.94	894	610	190	86	1.47
2	3	1+02	Lean mix Concrete Blend II	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	918	140	108	76	6.56
							40	3.44	416	104	76	49	4.08
								14.94	929	258	185	119	3.60
							130	3.44	422	147	89	53	2.87
								14.94	930	344	211	122	2.70
							326	3.44	486	185	99	56	2.63
								14.94	944	411	236	137	2.30
							650	3.44	439	186	119	65	2.36
								14.94	956	386	262	148	2.48
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	399	154	71	45	2.59
								14.94	905	320	152	97	2.83
2	3	1+04	Lean mix Concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	920	126	102	72	7.30
							40	3.44	416	74	58	42	5.62
								14.94	939	181	146	104	5.19

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+04 (Cont'd)					130	3.44	415	123	83	55	3.32
								14.94	935	271	188	128	3.45
							326	3.44	428	181	127	88	2.36
								14.94	947	365	263	185	2.59
							650	3.44	416	254	184	104	1.64
								14.94	948	479	360	228	1.98
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	398	194	105	45	2.05
								14.94	902	336	203	102	2.68
2	3	1+06	Lean mix Concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	919	130	103	74	7.07
							40	3.44	411	74	58	42	5.55
								14.94	945	186	143	107	5.08
							130	3.44	421	108	81	55	3.90
								14.94	932	241	188	134	3.87
							326	3.44	430	151	116	90	2.85
								14.94	959	314	259	206	3.05
							650	3.44	423	210	140	112	2.01
								14.94	945	421	315	246	2.24
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	394	141	104	60	2.79
								14.94	895	283	210	125	3.16
2	3	1+12.5	Lean mix Concrete Blend II	12	Blend II	60	0	3.44	401	58	50	33	6.91
								14.94	920	132	105	76	6.97

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+12.5 (Cont'd)					40	3.44	408	168	108	53	2.43
								14.94	937	369	234	126	2.55
							130	--	--	--	--	--	--
								--	--	--	--	--	--
							326	--	--	--	--	--	--
								--	--	--	--	--	--
							650	--	--	--	--	--	--
								--	--	--	--	--	--
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	393	215	111	33	1.83
								14.94	897	412	224	87	2.18
2	3	1+18.75	Lean mix Concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	--	--	--	--	--	--
								--	--	--	--	--	--
							130	3.44	420	102	74	54	4.12
								14.94	935	234	173	126	4.00
							326	3.44	433	140	97	66	3.09
								14.94	950	303	217	155	3.13
							650	3.44	423	170	123	77	2.49
								14.94	945	368	276	169	2.57
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+25	Lean mix Concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	3.44	403	154	113	61	2.62
								14.94	931	378	189	153	2.47
							130	3.44	419	281	154	66	1.49
								14.94	941	539	294	127	1.75
							326	3.44	424	200	185	69	2.12
								14.94	940	453	361	137	2.08
							650	3.44	427	187	149	52	2.28
								14.94	948	426	303	105	2.23
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	387	203	101	42	1.91
								14.94	893	400	219	92	2.23
2	3	1+31.25	Lean mix Concrete Blend II	12	Blend II	60	0	--	--	--	--	--	--
								--	--	--	--	--	--
							40	--	--	--	--	--	--
								--	--	--	--	--	--
							130	3.44	411	77	60	43	5.34
								14.94	927	183	143	107	5.09
							326	3.44	434	107	90	66	4.06
								14.94	949	244	209	155	3.89
							650	3.44	426	121	87	58	3.52
								14.94	946	280	206	141	3.26
							1300	--	--	--	--	--	--
								--	--	--	--	--	--

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+31.25 (Cont'd)					2600	--	--	--	--	--	--
								--	--	--	--	--	--
2	3	1+37.5	Lean mix Concrete Blend II	12	Blend II	60	0	3.44	403	59	49	35	6.83
								14.94	914	134	107	78	6.82
							40	3.44	402	198	102	57	2.03
								14.94	919	485	239	129	1.89
							130	--	--	--	--	--	--
								--	--	--	--	--	--
							326	--	--	--	--	--	--
								--	--	--	--	--	--
							650	--	--	--	--	--	--
								--	--	--	--	--	--
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	395	235	108	43	1.68
								14.94	894	448	235	99	1.99
2	3	1+44	Lean mix Concrete Blend II	12	Blend II	60	0	14.94	917	144	110	79	6.37
							40	3.44	409	94	72	54	4.35
								14.94	942	217	179	131	4.34
							130	3.44	421	102	88	54	4.12
								14.94	939	238	209	131	3.94
							326	3.44	430	170	127	64	2.53
								14.94	950	354	273	143	2.68

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+44 (Cont'd)					650	--	--	--	--	--	--
								--	--	--	--	--	--
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	391	184	93	49	2.13
								14.94	890	357	212	113	2.49
2	3	1+46	Lean mix Concrete Blend II	12	Blend II	60	0	14.94	924	138	121	99	6.70
							40	3.44	407	125	92	65	3.26
								14.94	928	284	223	180	3.27
							130	3.44	418	121	93	68	3.45
								14.94	936	303	232	170	3.10
							326	3.44	423	169	79	38	2.50
								14.94	949	395	231	126	2.40
							650	3.44	422	193	132	42	2.19
								14.94	943	409	292	102	2.31
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	390	186	73	40	2.10
								14.94	887	375	315	93	2.37
2	3	1+48	Lean mix Concrete Blend II	12	Blend II	60	0	14.94	922	192	212	64	4.80
							40	3.44	405	153	167	38	2.64
								14.94	931	368	409	97	2.53
							130	3.44	408	160	169	37	2.55
								14.94	910	366	409	79	2.49
							326	3.44	429	161	182	43	2.25
								14.94	941	373	415	102	2.53

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Composition: Top Layer Thickness in.	Composition: Bottom Layer Material	Composition: Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	3	1+48 (Cont'd)					650	3.44	412	212	113	43	1.94
								14.94	943	432	299	95	2.18
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	386	152	143	87	2.54
								14.94	896	351	338	195	2.55
2	4	1+52	Cement Stab. Blend I	12	Blend II	60	0	14.94	899	351	176	86	2.56
							40	3.44	409	302	138	46	1.35
								14.94	921	662	267	101	1.39
							130	3.44	415	386	158	48	1.08
								14.94	916	659	277	95	
							326	3.44	425	316	104	42	1.34
								14.94	952	580	234	97	1.64
							650	3.44	305	280	89	37	1.09
								14.94	379	565	204	86	
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	385	304	66	35	1.26
								14.94	888	557	176	84	1.59
2	4	1+54	Cement Stab. Blend I	12	Blend II	60	0	14.94	911	392	180	91	2.33
							40	3.44	413	470	101	27	0.88
								14.94	926	735	220	88	1.26
							130	3.44	382	328	85	41	1.16
								14.94	910	754	207	87	1.21
							326	3.44	419	389	74	38	1.08
								14.94	948	646	216	90	1.47

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	4	1+54 (Cont'd)					650	3.44	419	376	89	37	1.11
								14.94	945	632	206	88	1.50
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	387	315	58	36	1.22
								14.94	893	564	155	80	1.58
2	4	1+56	Cement Stab. Blend I	12	Blend II	60	0	14.94	910	304	172	90	2.99
							40	3.44	418	223	84	37	1.87
								14.94	933	490	205	90	1.90
							130	3.44	411	216	86	38	1.90
								14.94	927	467	209	82	1.99
							326	3.44	429	235	76	44	1.83
								14.94	953	482	184	95	1.98
							650	3.44	418	293	104	37	1.43
								14.94	935	542	236	84	1.73
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	380	217	63	37	1.75
								14.94	887	473	158	83	1.88
2	4	1+62.5	Cement Stab. Blend I	12	Blend II	60	0	3.44	397	149	79	40	2.66
								14.94	909	336	183	93	2.70
							40	3.44	415	208	92	36	1.99
								14.94	929	425	212	88	2.19
							130	3.44	399	185	77	34	2.15
								14.94	902	422	196	86	2.13

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	4	1+62.5 (Cont'd)					326	3.44	422	187	86	38	2.25
								14.94	945	434	212	83	2.17
							650	3.44	246	257	87	38	0.96
								14.94	505	568	212	83	0.89
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	390	153	70	33	2.55
								14.94	899	432	172	77	2.08
2	4	1+75	Cement Stab. Blend	12	Blend II	60	0	14.94	911	285	155	85	3.20
							40	3.44	423	207	98	45	2.04
								14.94	935	428	227	107	2.18
							130	3.44	409	188	77	37	2.18
								14.94	934	437	215	95	2.20
							326	3.44	424	189	100	44	2.24
								14.94	958	425	240	103	2.25
							650	3.44	408	183	82	44	2.23
								14.94	930	440	211	98	2.11
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	389	217	81	37	1.79
								14.94	894	439	192	84	2.03
2	4	1+87.5	Cement Stab. Blend I	12	Blend II	60	0	3.44	392	157	72	33	2.50
								14.94	899	350	164	78	2.57
							40	3.44	420	186	85	36	2.26
								14.94	931	392	199	86	2.37

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	4	1+87.5 (Cont'd)					130	3.44	416	203	90	33	2.03
								14.94	926	402	199	83	2.30
							326	3.44	421	190	93	36	2.21
								14.94	948	411	223	89	2.31
							650	3.44	434	166	105	41	2.61
								14.94	941	417	222	83	2.26
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	388	194	85	33	2.00
								14.94	905	433	190	71	2.09
2	4	1+94	Cement Stab. Blend I	12	Blend II	60	0	14.94	905	462	180	77	1.96
							40	3.44	422	217	83	44	1.94
								14.94	936	441	192	103	2.12
							130	3.44	414	229	84	45	1.81
								14.94	934	453	201	98	2.06
							326	3.44	426	233	121	52	1.84
								14.94	953	474	361	122	2.01
							650	3.44	427	263	83	42	1.62
								14.94	928	526	224	98	--
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	384	166	77	47	2.31
								14.94	887	455	203	98	1.95
2	4	1+96	Cement Stab. Blend I	12	Blend II	60	0	14.94	907	403	160	87	2.25
							40	3.44	422	251	107	47	1.68
								14.94	933	501	239	107	1.86

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	4	1+96 (Cont'd)					130	3.44	413	265	106	50	1.56
								14.94	925	545	236	103	1.70
							326	3.44	425	321	143	62	1.32
								14.94	958	611	312	135	1.58
							650	3.44	427	284	129	51	1.50
								14.94	930	594	271	112	1.57
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	385	346	133	34	1.17
								14.94	893	533	255	111	1.68
2	4	1+98	Cement Stab. Blend I	12	Blend II	60	0	14.94	911	366	197	93	2.49
							40	3.44	422	296	122	39	1.43
								14.94	923	580	269	102	1.59
							130	3.44	414	299	121	43	1.38
								14.94	924	586	256	94	1.57
							326	3.44	420	376	175	48	1.12
								14.94	951	673	354	114	1.41
							650	3.44	423	266	168	40	1.59
								14.94	930	673	332	95	1.38
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	379	430	170	46	0.88
								14.94	891	705	340	100	1.26
2	4	2+00	Cement Stab. Blend I	12	Blend II	60	0	14.94	903	541	196	90	1.67
							40	3.44	421	329	106	37	1.28
								14.94	923	625	248	98	1.48

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	4	2+00 (Cont'd)					130	3.44	414	281	104	40	1.47
								14.94	918	571	243	93	1.60
							326	3.44	425	453	118	44	0.94
								14.94	953	765	291	104	1.25
							650	3.44	421	321	100	38	1.31
								14.94	934	652	265	92	1.43
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	379	316	88	42	1.20
								14.94	882	687	248	85	1.28
2	5	2+00	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	903	541	196	90	1.67
							40	3.44	421	329	106	37	1.28
								14.94	923	625	248	98	1.48
							130	3.44	414	281	104	40	1.47
								14.94	918	571	243	93	1.60
							326	3.44	425	453	118	44	0.94
								14.94	953	765	291	104	1.25
							650	3.44	421	321	100	38	1.31
								14.94	934	652	265	92	1.43
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	379	316	88	42	1.20
								14.94	882	687	248	82	1.28
2	5	2+02	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	903	541	196	90	1.67
							40	3.44	419	256	99	38	1.64
								14.94	928	540	242	103	1.72

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	5	2+02 (Cont'd)					130	3.44	413	255	97	41	1.62
								14.94	921	550	242	96	1.67
							326	3.44	424	327	118	44	1.30
								14.94	951	709	301	112	1.34
							650	3.44	418	254	112	46	1.66
								14.94	938	689	296	109	1.36
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	383	268	115	42	1.43
								14.94	887	674	296	99	1.32
2	5	2+04	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	910	339	165	98	2.68
							40	3.44	421	201	90	42	2.09
								14.94	938	459	236	108	2.04
							130	3.44	408	216	84	40	1.89
								14.94	917	483	235	104	1.90
							326	3.44	416	355	105	45	1.17
								14.94	929	745	293	121	1.25
							650	3.44	429	274	108	44	1.57
								14.94	934	602	281	113	1.55
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	381	367	85	36	1.04
								14.94	884	628	251	104	1.41
2	5	2+06	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	909	282	173	95	3.22
							40	3.44	422	195	89	42	2.16
								14.94	936	438	226	105	2.14

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	5	2+06 (Cont'd)					130	3.44	413	198	100	43	2.09
								14.94	928	445	241	103	2.06
							326	3.44	422	293	126	49	1.44
								14.94	945	633	331	137	1.49
							650	3.44	419	240	113	44	1.75
								14.94	946	579	287	107	1.63
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	390	330	108	41	1.18
								14.94	889	659	277	103	1.35
2	5	2+12.5	Cement Stab. Blend II	16	Silt-ML	56	0	3.44	390	130	74	38	3.00
								14.94	908	310	189	97	2.93
							40	3.44	419	175	95	44	2.39
								14.94	947	405	246	114	2.33
							130	3.44	410	235	95	44	1.74
								14.94	905	518	248	112	1.75
							326	3.44	422	283	115	48	1.49
								14.94	944	614	306	130	1.54
							650	3.44	422	230	103	44	1.83
								14.94	931	573	288	122	1.62
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	389	230	102	45	1.69
								14.94	888	553	275	121	1.61

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	5	2+25	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	918	238	152	89	3.86
							40	3.44	418	180	86	42	2.32
								14.94	934	396	217	111	2.36
							130	3.44	410	235	95	43	1.74
								14.94	905	518	248	212	1.75
							326	3.44	423	225	106	49	1.88
								14.94	953	494	274	135	1.93
							650	3.44	428	230	107	52	1.86
								14.94	930	505	269	129	1.84
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	388	225	88	38	1.72
								14.94	891	487	246	106	1.83
2	5	2+37.5	Cement Stab. Blend II	16	Silt-ML	56	0	3.44	392	141	70	35	2.77
								14.94	907	290	167	95	3.13
							40	3.44	411	152	85	42	2.70
								14.94	930	357	219	112	2.61
							130	3.44	423	142	85	46	2.98
								14.94	915	328	202	106	2.79
							326	3.44	414	198	101	54	2.09
								14.94	946	475	270	136	1.99
							650	3.44	422	180	86	45	2.34
								14.94	940	402	214	109	2.34
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	385	215	76	38	1.80
								14.94	887	521	257	112	1.70

(Continued)

(Sheet 92 of 124)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	5	2+44	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	911	230	161	97	3.96
							40	3.44	411	140	84	40	2.94
								14.94	934	353	218	108	2.65
							130	3.44	399	132	79	41	3.02
								14.94	905	313	198	102	2.89
							326	3.44	423	180	97	46	2.35
								14.94	950	434	256	121	2.19
							650	3.44	411	214	98	45	1.92
								14.94	936	479	176	116	2.19
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	384	196	100	52	1.96
								14.94	887	506	281	127	1.75
2	5	2+46	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	907	256	165	95	3.54
							40	3.44	393	150	77	35	2.62
								14.94	913	355	218	106	2.57
							130	3.44	397	149	80	41	2.56
								14.94	899	345	202	102	2.60
							326	3.44	418	185	96	42	2.70
								14.94	942	451	257	113	2.09
							650	3.44	421	252	99	45	1.67
								14.94	924	531	273	117	1.74
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	383	205	100	50	1.87
								14.94	882	510	280	117	1.72

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
2	5	2+48	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	904	320	160	90	2.83
							40	3.44	409	177	86	39	2.31
								14.94	921	391	226	108	2.36
							130	3.44	397	160	77	39	2.48
								14.94	905	375	201	101	2.41
							326	3.44	416	226	93	42	1.84
								14.94	941	502	255	112	1.87
							650	3.44	422	231	102	46	1.83
								14.94	932	525	279	111	1.78
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	387	285	91	39	1.36
								14.94	883	620	256	102	1.42
2	5	2+50	Cement Stab. Blend II	16	Silt-ML	56	0	14.94	904	325	160	90	2.78
							40	3.44	417	185	93	35	2.25
								14.94	931	418	239	96	2.23
							130	3.44	413	181	89	44	2.28
								14.94	920	398	215	99	2.31
							326	3.44	415	221	99	41	1.88
								14.94	946	503	264	105	1.88
							650	3.44	420	255	102	43	1.65
								14.94	933	557	282	98	1.68
							1300	--	--	--	--	--	--
								--	--	--	--	--	--
							2600	3.44	389	246	87	40	1.58
								14.94	886	583	239	97	1.52

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+00	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	906	581	179	110	1.56
							40	3.44	422	452	98	59	0.93
								14.94	429	332	79	57	1.29
							130	3.44	437	362	107	67	1.21
								14.94	964	688	240	142	1.40
							326	3.44	434	330	109	66	1.32
								14.94	962	706	242	135	1.36
							650	3.44	434	451	110	69	0.96
								14.94	957	908	245	155	1.05
							1300	3.44	429	396	127	76	1.08
								14.94	955	771	308	165	1.24
							2600	3.44	406	379	100	63	1.07
								14.94	937	775	245	144	1.21
3	1	0+02	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	906	581	179	110	1.56
							40	3.44	429	332	79	57	1.29
								14.94	955	603	183	125	1.58
							130	3.44	443	334	96	63	1.33
								14.94	967	611	218	138	1.58
							326	3.44	433	305	102	62	1.42
								14.94	963	637	220	133	1.51
							650	3.44	436	377	110	69	1.16
								14.94	968	773	256	152	1.25
							1300	3.44	431	407	110	70	1.06
								14.94	947	768	267	156	1.23

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+02 (Cont'd)					2600	3.44	423	393	114	66	1.08
								14.94	934	789	258	143	1.18
3	1	0+04	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	907	615	154	111	1.47
							40	3.44	425	342	92	61	1.24
								14.94	947	640	205	132	1.48
							130	3.44	438	336	95	64	1.30
								14.94	968	643	213	138	1.51
							326	3.44	426	361	103	64	1.18
								14.94	951	711	223	134	1.34
							650	3.44	436	292	89	72	1.49
								14.94	966	599	216	152	1.61
							1300	3.44	429	314	118	74	1.37
								14.94	955	637	274	168	1.50
							2600	3.44	408	357	111	68	1.14
								14.94	931	724	259	149	1.29
3	1	0+06	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	910	497	172	106	1.83
							40	3.44	427	312	101	58	1.37
								14.94	949	606	219	127	1.57
							130	3.44	426	403	99	65	1.06
								14.94	955	756	227	131	1.26
							326	3.44	434	289	108	65	1.50
								14.94	952	571	232	136	1.67
							650	3.44	433	335	117	73	1.29
								14.94	961	725	266	157	1.33

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+06 (Cont'd)					1300	3.44	427	375	117	70	1.14
								14.94	947	743	279	159	1.27
							2600	3.44	413	429	114	69	0.96
								14.94	920	793	269	148	1.16
3	1	0+12.5	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	405	365	79	48	1.11
								14.94	927	645	171	103	1.44
							40	3.44	423	310	91	59	1.36
								14.94	946	608	210	130	1.56
							130	3.44	431	260	92	64	1.66
								14.94	970	548	207	131	1.77
							326	3.44	434	357	103	66	1.22
								14.94	944	659	225	135	1.43
							650	3.44	434	262	111	68	1.66
								14.94	969	601	262	155	1.61
							1300	3.44	428	340	118	71	1.26
								14.94	954	742	281	160	1.29
							2600	3.44	406	386	113	70	1.05
								14.94	928	821	280	160	1.13
3	1	0+25	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	948	321	123	87	2.95
							40	3.44	424	296	77	54	1.43
								14.94	942	559	172	116	1.69
							130	3.44	420	307	79	59	1.37
								14.94	955	671	205	130	1.42
							326	3.44	420	300	88	57	1.40
								14.94	949	583	211	135	1.63

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+25 (Cont'd)					650	3.44	436	289	113	67	1.51
								14.94	968	634	267	149	1.53
							1300	3.44	421	286	93	66	1.47
								14.94	952	605	257	144	1.57
							2600	3.44	415	347	115	65	1.20
								14.94	932	695	282	146	1.34
3	1	0+37.5	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	415	137	47	36	3.03
								14.94	933	278	107	81	3.36
							40	3.44	422	253	81	51	1.67
								14.94	941	436	187	111	2.16
							130	3.44	442	294	92	58	1.50
								14.94	959	517	190	123	1.85
							326	3.44	438	314	89	62	1.39
								14.94	957	596	199	129	1.61
							650	3.44	433	317	98	64	1.37
								14.94	961	600	228	139	1.60
							1300	3.44	427	364	108	67	1.17
								14.94	939	675	248	144	1.39
							2600	3.44	417	331	101	63	1.26
								14.94	934	648	241	140	1.44
3	1	0+44	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	943	315	110	81	2.99
							40	3.44	418	284	85	54	1.47
								14.94	931	605	188	113	1.54
							130	3.44	421	342	99	58	1.23
								14.94	951	681	230	123	1.40

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+44 (Cont'd)					326	3.44	432	330	102	64	1.31
								14.94	956	654	235	132	1.46
							650	3.44	433	296	102	65	1.46
								14.94	967	623	241	138	1.55
							1300	3.44	418	302	104	65	1.38
								14.94	942	700	252	139	1.35
							2600	3.44	409	321	101	58	1.27
								14.94	937	694	253	132	1.35
3	1	0+46	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	952	311	119	84	3.06
							40	3.44	419	273	90	51	1.53
								14.94	929	529	200	112	1.76
							130	3.44	432	279	88	53	1.55
								14.94	931	564	210	116	1.65
							326	3.44	422	313	88	63	1.35
								14.94	948	609	211	166	1.56
							650	3.44	425	308	93	59	1.38
								14.94	960	651	222	128	1.47
							1300	3.44	418	309	98	64	1.35
								14.94	943	651	240	138	1.45
							2600	3.44	402	320	91	54	1.26
								14.94	914	635	234	117	1.44
3	1	0+48	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	935	286	128	86	3.27
							40	3.44	414	387	81	51	1.07
								14.94	923	678	184	114	1.36

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	1	0+48 (Cont'd)					130	3.44	421	305	83	58	1.38
								14.94	949	637	203	116	1.49
							326	3.44	432	398	95	56	1.09
								14.94	943	663	208	116	1.42
							650	3.44	429	265	91	56	1.62
								14.94	965	583	213	117	1.66
							1300	3.44	421	326	100	56	1.29
								14.94	946	649	245	129	1.46
							2600	3.44	404	325	86	50	1.24
								14.94	937	637	209	110	1.47
3	1	0+50	Crushed Lime-stone	29	Heavy Clay	43	0	3.44	--	--	--	--	--
								14.94	934	365	148	95	2.56
							40	3.44	417	313	83	50	1.33
								14.94	919	615	185	105	1.49
							130	3.44	438	423	84	55	1.04
								14.94	942	750	181	121	1.26
							326	3.44	434	314	71	46	1.38
								14.94	951	593	159	99	1.60
							650	3.44	422	288	77	52	1.47
								14.94	955	628	193	112	1.52
							1300	3.44	417	337	85	55	1.24
								14.94	941	648	209	122	1.45
							2600	3.44	404	342	80	54	1.18
								14.94	929	725	205	109	1.28
3	2	0+50	TRANSITION				0	3.44	--	--	--	--	--
								14.94	934	365	148	85	2.56

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+50 (Cont'd)					40	3.44	417	313	83	50	1.33
								14.94	919	615	185	105	1.49
							130	3.44	438	423	84	55	1.04
								14.94	942	750	181	121	1.26
							326	3.44	434	314	71	46	1.38
								14.94	951	593	159	99	1.60
							650	3.44	422	288	77	52	1.47
								14.94	955	628	193	112	1.52
							1300	3.44	417	337	85	55	1.24
								14.94	941	648	209	122	1.45
							2600	3.44	404	342	80	54	1.18
								14.94	929	725	205	109	1.28
3	2	0+52	Crushed Limestone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	932	431	168	84	2.16
							40	3.44	406	211	84	43	1.92
								14.94	911	408	224	107	2.23
							130	3.44	416	223	82	51	1.87
								14.94	938	732	184	101	1.28
							326	3.44	430	322	75	46	1.34
								14.94	945	622	168	97	1.52
							650	3.44	424	307	81	49	1.38
								14.94	956	575	197	111	1.66
							1300	3.44	418	336	92	55	1.24
								14.94	941	625	209	120	1.51
							2600	3.44	408	278	79	45	1.47
								14.94	943	595	195	110	1.58

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+54	Crushed Limestone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	922	566	173	84	1.63
							40	3.44	408	343	90	46	1.19
								14.94	907	718	213	104	1.26
							130	3.44	418	286	58	45	1.46
								14.94	948	592	165	94	1.60
							326	3.44	419	336	63	43	1.25
								14.94	945	617	165	95	1.53
							650	3.44	424	298	74	46	1.42
								14.94	956	581	184	106	1.65
							1300	3.44	408	299	80	51	1.36
								14.94	935	627	197	114	1.49
							2600	3.44	403	259	69	44	1.56
								14.94	938	579	177	102	1.62
3	2	0+56	Crushed Limestone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	928	490	168	83	1.89
							40	3.44	407	302	89	45	1.35
								14.94	909	683	216	104	1.33
							130	3.44	426	318	67	46	1.34
								14.94	944	615	174	96	1.53
							326	3.44	426	281	59	25	1.52
								14.94	944	531	148	83	1.78
							650	3.44	421	306	70	47	1.38
								14.94	946	578	171	108	1.64
							1300	3.44	416	343	74	47	1.21
								14.94	934	666	179	111	1.40

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+56 (Cont'd)					2600	3.44	406	273	65	43	1.49
								14.94	939	560	170	102	1.68
3	2	0+62.5	Crushed Lime-stone	12	Blend II	60	0	3.44	409	252	81	42	1.62
								14.94	927	501	174	88	1.85
							40	3.44	405	273	77	46	1.48
								14.94	926	626	194	103	1.48
							130	3.44	416	414	90	44	1.00
								14.94	941	789	177	96	1.19
							326	3.44	410	332	62	40	1.23
								14.94	934	624	152	92	1.50
							650	3.44	422	328	80	45	1.29
								14.94	952	599	190	109	1.59
							1300	3.44	414	250	86	50	1.66
								14.94	940	528	209	113	1.78
							2600	3.44	413	278	76	45	1.49
								14.94	940	622	192	108	1.51
3	2	0+75	Crushed Lime-stone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	924	480	179	85	1.93
							40	3.44	411	339	90	50	1.21
								14.94	917	711	208	109	1.29
							130	3.44	414	308	64	47	1.34
								14.94	944	671	168	103	1.41
							326	3.44	414	304	60	40	1.36
								14.94	936	641	148	92	1.46
							650	3.44	420	271	69	49	1.55
								14.94	953	589	179	111	1.62

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+75 (Cont'd)					1300	3.44	412	361	72	49	1.14
								14.94	931	692	186	115	1.35
							2600	3.44	412	284	72	46	1.45
								14.94	945	597	190	110	1.58
3	2	0+87.5	Crushed Lime-stone	12	Blend II	60	0	3.44	410	275	90	41	1.49
								14.94	926	522	188	90	1.77
							40	3.44	414	338	76	45	1.22
								14.94	914	652	178	99	1.40
							130	3.44	419	254	77	45	1.65
								14.94	941	606	160	97	1.55
							326	3.44	417	316	60	42	1.32
								14.94	939	639	149	91	1.47
							650	3.44	417	317	67	47	1.32
								14.94	943	649	182	107	1.45
							1300	3.44	407	299	72	51	1.36
								14.94	925	663	194	113	1.40
							2600	3.44	411	270	67	46	1.52
								14.94	946	568	174	109	1.67
3	2	0+94	Crushed Lime-stone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	924	523	210	91	1.77
							40	3.44	413	327	78	43	1.26
								14.94	914	652	184	100	1.63
							130	3.44	417	274	64	44	1.52
								14.94	933	572	161	94	1.63
							326	3.44	430	295	73	99	1.46
								14.94	940	579	152	87	1.62

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+94 (Cont'd)					650	3.44	417	263	67	44	1.59
								14.94	946	569	177	105	1.66
							1300	3.44	404	314	74	47	1.29
								14.94	919	608	200	110	1.51
							2600	3.44	412	269	72	43	1.53
								14.94	939	580	182	101	1.62
3	2	0+96	Crushed Lime-stone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	917	663	208	94	1.38
							40	3.44	407	348	69	46	1.17
								14.94	909	631	165	102	1.44
							130	3.44	415	258	62	67	1.61
								14.94	938	772	166	103	1.22
							326	3.44	420	302	64	44	1.39
								14.94	942	620	152	96	1.52
							650	3.44	419	257	82	47	1.63
								14.94	939	608	188	106	1.54
							1300	3.44	395	274	68	60	1.44
								14.94	909	601	186	115	1.51
							2600	3.44	407	289	71	45	1.41
								14.94	944	586	167	103	1.61
3	2	0+98	Crushed Lime-stone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	915	706	231	75	1.30
							40	3.44	407	336	84	42	1.21
								14.94	911	688	194	94	1.32
							130	3.44	422	304	71	42	1.39
								14.94	947	598	183	96	1.58

(Continued)

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	2	0+98 (Cont'd)					326	3.44	425	317	71	42	1.34
								14.94	947	583	158	88	1.62
							650	3.44	417	286	75	44	1.46
								14.94	943	624	192	100	1.51
							1300	3.44	416	414	105	57	1.00
								14.94	935	895	266	136	1.04
3	2	1+00	Crushed Limestone	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	738	715	204	88	1.03
							40	3.44	406	339	60	45	1.20
								14.94	914	668	176	100	1.37
							130	3.44	420	265	67	43	1.58
								14.94	944	635	173	97	1.49
							326	3.44	421	287	69	43	1.47
								14.94	949	591	158	91	1.61
							650	3.44	419	376	75	45	1.11
								14.94	939	669	185	105	1.40
							1300	3.44	398	340	71	46	1.17
								14.94	915	793	191	109	1.15
							2600	3.44	409	351	77	45	1.17
								14.94	938	689	192	103	1.36
3	3	1+00	TRANSITION				0	3.44	--	--	--	--	--
								14.94	738	715	204	88	1.03
							40	3.44	406	339	60	45	1.20
								14.94	914	668	176	100	1.37
							130	3.44	420	265	67	43	1.58
								14.94	944	635	173	97	1.49

(Continued)

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+00 (Cont'd)					326	3.44	421	287	69	43	1.47
								14.94	949	591	158	91	1.61
							650	3.44	419	376	75	45	1.11
								14.94	939	669	185	105	1.40
							1300	3.44	398	340	71	46	1.17
								14.94	915	793	191	109	1.15
							2600	3.44	409	351	77	45	1.17
								14.94	938	689	192	103	1.36
3	3	1+02	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	908	995	240	95	0.91
							40	3.44	397	300	73	44	1.32
								14.94	916	703	204	99	1.30
							130	3.44	424	292	77	45	1.45
								14.94	953	617	193	98	1.54
							326	3.44	425	317	74	43	1.34
								14.94	948	619	177	100	1.53
							650	3.44	415	349	76	46	1.19
								14.94	943	662	192	108	1.42
							1300	3.44	403	261	80	49	1.54
								14.94	931	666	208	107	1.40
							2600	3.44	412	280	82	46	1.47
								14.94	938	599	201	105	1.57
3	3	1+04	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	909	867	267	95	1.44
							40	3.44	401	184	74	46	2.18
								14.94	919	633	215	102	1.45

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+04 (Cont'd)					130	3.44	411	346	78	42	1.19
								14.94	941	761	198	96	1.24
							326	3.44	414	294	73	42	1.41
								14.94	945	654	178	96	1.44
							650	3.44	416	339	85	45	1.23
								14.94	943	700	201	105	1.35
							1300	3.44	401	356	83	50	1.13
								14.94	925	835	217	109	1.11
							2600	3.44	412	277	80	45	1.49
								14.94	930	637	198	102	1.46
3	3	1+06	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	912	864	242	98	1.06
							40	3.44	398	285	88	44	1.40
								14.94	906	624	212	102	1.45
							130	3.44	411	268	73	46	1.53
								14.94	945	702	192	100	1.35
							326	3.44	413	291	74	45	1.42
								14.94	944	682	186	95	1.38
							650	3.44	416	299	84	46	1.39
								14.94	941	632	199	108	1.49
							1300	3.44	404	327	86	46	1.24
								14.94	921	693	222	112	1.33
							2600	3.44	412	315	83	48	1.31
								14.94	927	671	206	108	1.38
3	3	1+12.5	Blend II* Optimum	6	Blend II	66	0	3.44	410	311	98	45	1.32
								14.94	917	688	215	99	1.33

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+12.5 (Cont'd)					40	3.44	410	300	89	46	1.37
								14.94	917	678	202	100	1.35
							130	3.44	422	252	78	45	1.67
								14.94	949	603	186	97	1.57
							326	3.44	419	243	75	43	1.72
								14.94	943	606	176	94	1.56
							650	3.44	419	290	80	46	1.44
								14.94	939	625	198	105	1.50
							1300	3.44	393	317	87	45	1.24
								14.94	900	663	216	108	1.36
							2600	3.44	410	260	77	47	1.58
								14.94	931	587	187	105	1.59
3	3	1+25	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	914	724	242	98	1.26
							40	3.44	396	374	83	38	0.82
								14.94	907	774	208	97	1.17
							130	3.44	429	265	84	44	1.62
								14.94	944	614	193	97	1.54
							326	3.44	421	273	69	41	1.54
								14.94	939	611	170	90	1.54
							650	3.44	419	289	80	46	1.45
								14.94	944	605	198	103	1.56
							1300	3.44	393	476	87	45	0.83
								14.94	900	663	216	108	1.36
							2600	3.44	408	253	80	43	1.61
								14.94	931	573	199	101	1.62

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+37.5	Blend II* Optimum	6	Blend II	66	0	3.44	403	322	98	48	1.25
								14.94	914	671	218	101	1.36
							40	3.44	401	345	86	47	1.16
								14.94	910	779	208	104	1.17
							130	3.44	431	310	79	43	1.39
								14.94	946	618	181	145	1.53
							326	3.44	416	254	71	44	1.64
								14.94	943	592	173	97	1.59
							650	3.44	413	268	78	42	1.54
								14.94	942	577	196	107	1.63
							1300	3.44	405	297	84	40	1.36
								14.94	916	583	205	114	1.57
							2600	3.44	410	233	78	37	1.76
								14.94	937	568	205	105	1.65
3	3	1+44	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	914	665	227	103	1.37
							40	3.44	404	346	89	47	1.17
								14.94	914	793	210	104	1.15
							130	3.44	424	295	85	46	1.44
								14.94	944	639	202	103	1.48
							326	3.44	417	268	76	42	1.56
								14.94	944	608	189	94	1.55
							650	3.44	419	292	85	47	1.43
								14.94	943	628	207	109	1.50
							1300	3.44	406	327	96	44	1.24
								14.94	931	620	236	114	1.50

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+44 (Cont'd)					2600	3.44	411	276	83	46	1.49
								14.94	934	587	209	105	1.59
3	3	1+46	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	909	711	221	101	1.28
							40	3.44	408	298	88	47	1.37
								14.94	914	703	211	106	1.30
							130	3.44	416	325	79	63	1.28
								14.94	929	771	196	117	1.20
							326	3.44	413	330	81	43	1.25
								14.94	940	671	188	101	1.40
							650	3.44	413	327	86	43	1.26
								14.94	928	634	203	109	1.46
							1300	3.44	413	410	89	52	1.01
								14.94	923	784	218	119	1.18
							2600	3.44	406	330	81	46	1.23
								14.94	920	669	199	111	1.38
3	3	1+48	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	910	731	219	100	1.24
							40	3.44	409	291	90	48	1.41
								14.94	912	637	213	108	1.43
							130	3.44	409	384	81	45	1.07
								14.94	929	746	199	105	1.25
							326	3.44	411	248	74	43	1.66
								14.94	941	568	188	101	1.66
							650	3.44	414	337	86	44	1.23
								14.94	926	659	205	109	1.41

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition											
			Top Layer		Bottom Layer									
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	3	1+48 (Cont'd)					1300	3.44	404	264	86	48	1.53
								14.94	928	628	222	117	1.48
							2600	3.44	402	286	76	47	1.41
								14.94	934	647	208	110	1.44
3	3	1+50	Blend II* Optimum	6	Blend II	66	0	3.44	--	--	--	--	--
								14.94	914	810	223	102	1.13
							40	3.44	404	367	90	47	1.10
								14.94	908	832	211	107	1.09
							130	3.44	425	338	87	76	1.26
								14.94	938	717	195	170	1.31
							326	3.44	409	276	72	50	1.48
								14.94	944	677	180	102	1.39
							650	3.44	415	291	82	46	1.43
								14.94	932	648	206	110	1.44
							1300	3.44	406	317	84	46	1.28
								14.94	926	805	220	114	1.15
							2600	3.44	404	342	80	54	1.18
								14.94	929	725	205	109	1.28
3	4	1+50	TRANSITION				0	3.44	--	--	--	--	--
								14.94	914	810	223	102	1.13
							40	3.44	404	367	90	47	1.10
								14.94	908	832	211	107	1.09
							130	3.44	425	338	87	76	1.26
								14.94	938	717	195	170	1.31
							326	3.44	409	276	72	50	1.48
								14.94	944	677	180	102	1.39

(Continued)

* Double bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+50 (Cont'd)					650	3.44	415	291	82	46	1.43
								14.94	932	648	206	110	1.44
							1300	3.44	406	317	84	46	1.28
								14.94	926	805	220	114	1.15
							2600	3.44	404	342	80	54	1.18
								14.94	929	725	205	109	1.28
3	4	1+52	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	900	681	237	101	1.32
							40	3.44	406	211	84	43	1.92
								14.94	911	408	224	107	2.23
							130	3.44	431	278	89	46	1.55
								14.94	941	618	206	100	1.52
							326	3.44	414	242	83	44	1.71
								14.94	949	572	182	93	1.66
							650	3.44	409	290	81	48	1.41
								14.94	935	680	204	108	1.38
							1300	3.44	402	355	90	48	1.13
								14.94	913	775	229	115	1.18
							2600	3.44	408	318	83	46	1.28
								14.94	929	736	205	105	1.26
3	4	1+54	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	918	873	225	103	1.05
							40	3.44	408	343	90	46	1.19
								14.94	907	718	213	104	1.26
							130	3.44	409	306	82	46	1.34
								14.94	931	712	203	97	1.31

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+43 (Cont'd)					326	3.44	412	314	81	44	1.31
								14.94	943	706	221	96	1.34
							650	3.44	420	331	89	46	1.27
								14.94	943	732	212	106	1.29
							1300	3.44	408	317	93	45	1.29
								14.94	927	720	234	113	1.29
							2600	3.44	404	292	77	46	1.38
								14.94	930	712	206	104	1.31
3	4	1+56	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	906	752	220	101	1.20
							40	3.44	407	302	89	45	1.35
								14.94	909	683	216	104	1.33
							130	3.44	416	303	88	44	1.37
								14.94	932	651	206	97	1.43
							326	3.44	413	278	77	45	1.49
								14.94	943	636	192	96	1.48
							650	3.44	420	309	85	46	1.36
								14.94	942	680	208	105	1.39
							1300	3.44	399	305	91	48	1.31
								14.94	910	689	225	113	1.32
							2600	3.44	408	308	76	43	1.32
								14.94	930	687	201	104	1.35
3	4	1+62.5	Blend I* Optimum	12	Blend II	60	0	3.44	401	420	103	49	0.95
								14.94	911	873	228	107	1.04
							40	3.44	403	326	91	45	1.24
								14.94	908	695	214	102	1.31

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+62.5					130	3.44	412	369	81	41	1.12
		(Cont'd)						14.94	930	775	196	96	1.20
							326	3.44	411	392	75	40	1.05
								14.94	930	845	183	92	1.10
							650	3.44	411	397	89	43	1.04
								14.94	935	793	213	103	1.18
							1300	3.44	407	346	88	45	1.18
								14.94	926	765	222	108	1.21
							2600	3.44	408	342	80	42	1.19
								14.94	930	770	197	99	1.21
3	4	1+75	Blend I*	12	Blend II	60	0	3.44	--	--	--	--	--
			Optimum					14.94	918	988	228	100	0.93
							40	3.44	405	356	90	50	1.14
								14.94	907	807	208	107	1.12
							130	3.44	407	291	78	45	1.40
								14.94	930	728	191	100	1.28
							326	3.44	410	340	76	76	1.21
								14.94	938	807	179	123	1.16
							650	3.44	411	321	82	48	1.28
								14.94	938	732	203	105	1.28
							1300	3.44	409	321	96	50	1.27
								14.94	929	719	234	114	1.29
							2600	3.44	408	328	79	44	1.24
								14.94	930	731	204	103	1.27
3	4	1+87.5	Blend I*	12	Blend II	60	0	3.44	401	375	105	39	1.07
			Optimum					14.94	913	795	220	101	1.15

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+87.5 (Cont'd)					40	3.44	399	354	88	48	1.13
								14.94	903	835	206	102	1.08
							130	3.44	406	339	78	45	1.20
								14.94	934	788	198	98	1.19
							326	3.44	409	395	75	38	1.04
								14.94	935	854	184	92	1.09
							650	3.44	411	337	87	50	1.22
								14.94	935	661	206	106	1.41
							1300	3.44	408	474	93	48	0.86
								14.94	913	850	223	111	1.07
							2600	3.44	398	430	87	43	0.93
								14.94	907	862	215	106	1.05
3	4	1+94	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	926	677	222	107	1.37
							40	3.44	404	285	91	48	1.42
								14.94	906	660	216	107	1.37
							130	3.44	416	405	86	49	1.03
								14.94	931	846	203	107	1.10
							326	3.44	411	370	84	44	1.11
								14.94	938	838	190	94	1.12
							650	3.44	409	386	83	49	1.06
								14.94	931	825	214	115	1.13
							1300	3.44	417	359	90	52	1.16
								14.94	936	782	224	122	1.20
							2600	3.44	400	291	75	43	1.37
								14.94	925	680	203	102	1.36

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+96	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	902	922	247	111	0.98
							40	3.44	404	417	103	50	0.97
								14.94	902	908	231	112	0.99
							130	3.44	417	385	100	50	1.08
								14.94	932	795	240	114	1.17
							326	3.44	404	360	89	49	1.12
								14.94	943	779	220	110	1.21
							650	3.44	412	371	93	53	1.11
								14.94	926	819	233	117	1.13
							1300	3.44	414	405	106	55	1.02
								14.94	934	888	268	125	1.05
							2600	3.44	412	353	101	48	1.17
								14.94	915	720	227	112	1.27
3	4	1+98	Blend I* Optimum	12	Blend II	60	0	3.44	--	--	--	--	--
								14.94	910	850	258	107	1.07
							40	3.44	404	412	106	51	0.98
								14.94	902	914	258	118	0.99
							130	3.44	418	401	102	48	1.04
								14.94	924	910	254	115	1.02
							326	3.44	409	366	98	52	1.12
								14.94	939	894	235	115	1.05
							650	3.44	418	430	110	54	0.97
								14.94	933	896	264	125	1.04
							1300	3.44	416	414	105	57	1.00
								14.94	935	895	266	136	1.04

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	4	1+98 (Cont'd)					2600	3.44	411	365	96	48	1.13
								14.94	921	768	246	113	1.20
3	4	2+00	TRANSITION				0	3.44	--	--	--	--	--
								14.94	906	747	247	109	1.21
							40	3.44	399	325	109	52	1.23
								14.94	899	821	261	120	1.10
							130	3.44	410	359	88	53	1.14
								14.94	928	875	252	130	1.06
							326	3.44	414	365	104	52	1.13
								14.94	936	779	257	121	1.20
							650	3.44	409	383	102	55	1.07
								14.94	932	850	283	134	1.10
							1300	3.44	414	372	123	57	1.11
								14.94	933	860	319	144	1.08
							2600	3.44	407	384	100	50	1.06
								14.94	918	857	272	124	1.07
3	5	2+00	TRANSITION				0	3.44	--	--	--	--	--
								14.94	906	747	247	109	1.21
							40	3.44	399	325	109	52	1.23
								14.94	899	821	261	120	1.10
							130	3.44	410	359	88	53	1.14
								14.94	928	875	252	130	1.06
							326	3.44	414	365	104	52	1.13
								14.94	936	779	257	121	1.20
							650	3.44	409	383	102	55	1.07
								14.94	932	850	283	134	1.10

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+00 (Cont'd)					1300	3.44	414	372	123	57	1.11
								14.94	933	860	319	144	1.08
							2600	3.44	407	384	100	50	1.06
								14.94	918	857	272	124	1.07
3	5	2+02	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	915	636	230	109	1.44
							40	3.44	402	406	107	54	0.99
								14.94	902	880	263	125	1.03
							130	3.44	409	358	92	50	1.14
								14.94	929	811	227	122	1.15
							326	3.44	415	307	98	53	1.35
								14.94	931	729	253	118	1.28
							650	3.44	411	380	110	57	1.08
								14.94	928	845	291	137	1.10
							1300	3.44	414	459	120	59	0.90
								14.94	924	995	307	148	0.93
							2600	3.44	406	331	107	50	1.23
								14.94	921	745	285	126	1.24
3	5	2+04	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	913	578	224	107	1.58
							40	3.44	402	413	108	46	0.97
								14.94	896	896	259	113	1.00
							130	3.44	406	400	100	52	1.02
								14.94	928	858	269	124	1.08
							326	3.44	405	365	90	49	1.11
								14.94	931	857	247	118	1.09

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

			Composition											
			Top Layer		Bottom Layer									
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+04 (Cont'd)					650	3.44	416	330	114	56	1.26
								14.94	932	745	295	137	1.25
							1300	3.44	415	349	120	59	1.19
								14.94	934	758	314	144	1.23
							2600	3.44	407	411	116	53	0.99
								14.94	912	855	297	131	1.07
3	5	2+06	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	911	583	216	108	1.56
							40	3.44	400	322	102	51	1.24
								14.94	910	766	255	123	1.19
							130	3.44	409	332	95	52	1.23
								14.94	936	749	251	123	1.25
							326	3.44	410	266	95	53	1.54
								14.94	934	646	242	118	1.45
							650	3.44	416	330	111	56	1.26
								14.94	935	750	286	138	1.25
							1300	3.44	418	334	117	57	1.25
								14.94	932	738	307	147	1.26
							2600	3.44	405	274	106	52	1.48
								14.94	927	693	282	128	1.34
3	5	2+12.5	Blend II* Optimum	16	ML	56	0	3.44	404	306	94	47	1.32
								14.94	916	700	216	110	1.31
							40	3.44	404	364	100	53	1.11
								14.94	903	818	245	123	1.10
							130	3.44	407	324	92	49	1.26
								14.94	936	683	234	122	1.37

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+12.5 (Cont'd)					326	3.44	405	294	87	54	1.38
								14.94	944	713	234	125	1.32
							650	3.44	408	310	101	55	1.32
								14.94	918	735	274	134	1.25
							1300	3.44	413	360	111	58	1.15
								14.94	933	800	298	144	1.17
							2600	3.44	408	420	101	51	0.97
								14.94	915	841	258	124	1.09
3	5	2+25	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	908	645	236	112	1.41
							40	3.44	403	348	101	53	1.16
								14.94	908	779	254	125	1.17
							130	3.44	407	386	99	50	1.05
								14.94	931	829	251	128	1.12
							326	3.44	421	311	109	57	1.35
								14.94	937	677	252	127	1.38
							650	3.44	408	303	103	57	1.35
								14.94	917	735	281	139	1.25
							1300	3.44	412	317	120	59	1.30
								14.94	927	691	315	149	1.34
							2600	3.44	405	363	101	52	1.12
								14.94	918	833	287	132	1.10
3	5	2+37.5	Blend II* Optimum	16	ML	56	0	3.44	405	260	95	49	1.56
								14.94	914	523	218	113	1.75
							40	3.44	405	331	105	56	1.22
								14.94	906	719	253	132	1.26

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+37.5 (Cont'd)					130	3.44	402	300	95	53	1.34
								14.94	928	708	245	128	1.31
							326	3.44	411	277	111	58	1.48
								14.94	937	647	264	133	1.45
							650	3.44	410	320	108	58	1.28
								14.94	918	690	283	141	1.33
							1300	3.44	413	321	116	58	1.29
								14.94	932	730	305	148	1.28
							2600	3.44	402	354	100	49	1.14
								14.94	926	786	281	133	1.18
3	5	2+44	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	906	700	214	117	1.29
							40	3.44	396	340	103	55	1.16
								14.94	901	817	247	124	1.10
							130	3.44	409	316	95	55	1.29
								14.94	932	757	251	125	1.23
							326	3.44	410	348	105	58	1.18
								14.94	929	775	253	133	1.20
							650	3.44	408	315	98	52	1.30
								14.94	923	705	264	133	1.31
							1300	3.44	409	336	110	50	1.22
								14.94	933	763	293	140	1.22
							2600	3.44	399	305	83	49	1.31
								14.94	920	739	228	127	1.24
3	5	2+46	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	910	579	217	119	1.57

(Continued)

* Single bituminous surface treatment.

Table A18 (Continued)

Lane	Item	Station ft	Composition: Top Layer Material	Top Layer Thickness in.	Bottom Layer Material	Bottom Layer Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+46 (Cont'd)					40	3.44	403	284	101	54	1.42
								14.94	902	657	249	126	1.37
							130	3.44	405	335	89	61	3.70
								14.94	929	830	238	136	1.12
							326	3.44	413	295	107	54	1.40
								14.94	930	647	253	127	1.44
							650	3.44	403	377	98	55	1.07
								14.94	911	870	256	132	1.05
							1300	3.44	410	368	104	52	1.11
								14.94	931	812	273	132	1.15
							2600	3.44	399	350	90	51	1.14
								14.94	921	740	262	125	1.24
3	5	2+48	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	905	672	219	117	1.35
							40	3.44	286	435	99	55	0.55
								14.94	715	960	239	123	0.74
							130	3.44	403	360	94	53	1.12
								14.94	919	854	248	120	1.08
							326	3.44	407	438	99	70	0.93
								14.94	920	921	250	141	1.00
							650	3.44	406	345	98	54	1.18
								14.94	914	740	248	134	1.24
							1300	3.44	410	413	106	52	0.99
								14.94	923	876	279	133	1.05
							2600	3.44	388	329	95	128	1.18
								14.94	899	830	259	234	1.08

(Continued)

* Single bituminous surface treatment.

Table A18 (Concluded)

			Composition										
			Top Layer		Bottom Layer								
Lane	Item	Station ft	Material	Thickness in.	Material	Thickness in.	Number of Passes	Drop Height in.	Pressure kPa	Δ_0 microns	Δ_{18} microns	Δ_{36} microns	P/Δ_0 kPa/microns
3	5	2+50	Blend II* Optimum	16	ML	56	0	3.44	--	--	--	--	--
								14.94	888	1223	220	119	0.73
							40	3.44	404	502	98	53	0.80
								14.94	893	995	236	127	0.90
							130	3.44	236	333	86	50	0.71
								14.94	619	827	279	109	0.75
							326	3.44	407	488	96	61	0.83
								14.94	917	1075	255	133	0.85
							650	3.44	257	455	91	53	0.56
								14.94	704	1020	231	118	0.69
							1300	3.44	312	858	111	49	0.36
								14.94	756	1837	290	126	0.41
							2600	3.44	154	494	89	46	0.31
								14.94	471	1235	245	112	0.38

* Single bituminous surface treatment.

Table A19

Rut Depths with Traffic

		Structural Composition						Maximum Rut from Cross-Section Data, in., at Designated Number of Load Cart Passes							
		Upper Layer		Lower Layer											
Lane	Item	Material	Thickness in.	Material	Thickness in.	Station ft		40	130	326	650	1100	1300	1950	2600
1	1	Crushed limestone	36	Heavy clay	36	0+12.5		0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.3
						0+25.0		0.0	0.2	0.1	0.2	0.4	0.3	0.3	0.4
						0+37.5		0.2	0.3	0.3	0.3	0.5	0.4	0.3	0.5
							Average	0.1	0.3	0.2	0.2	0.4	0.3	0.3	0.4
1	2	Crushed limestone	9	Blend II	63	0+62.5		0.5	0.7	0.8	0.8	1.1	1.1	1.0	1.1
						0+75.0		0.5	0.4	0.5	0.5	0.7	0.6	0.5	0.7
						0+87.5		0.5	0.9	0.9	1.0	1.2	1.1	1.1	1.2
							Average	0.5	0.7	0.7	0.8	0.7	0.9	0.9	1.0
1	3	Blend II	72	--	--	1+12.5		0.5	0.8	1.0	0.7	1.5	1.4	1.5	1.5
						1+25.0		0.4	0.7	0.9	0.8	1.6	1.3	1.2	1.4
						1+37.5		0.2	0.5	0.7	0.9	2.3	3.7	2.2	2.9
							Average	0.4	0.7	0.9	0.8	1.8	2.1	1.6	1.9
1	4	Blend I	9	Blend II	63	1+62.5		0.5	0.7	1.6	2.3	4.6	4.6	5.3	5.6
						1+75.0		0.5	0.9	1.8	2.2	2.7	3.0	3.5	3.5
						1+87.5		1.5	1.4	1.8	2.2	2.9	3.2	3.2	3.4
							Average	0.8	1.0	1.7	2.2	3.4	3.6	4.0	4.2
1	5	Silt	72	--	--	2+12.5		0.7	0.9	0.9	1.0	0.6	0.8	0.9	1.0
						2+25.0		0.8	0.9	1.0	1.2	1.2	0.9	1.2	1.3
						2+37.5		0.6	0.9	1.0	1.0	1.3	1.3	1.5	1.6
							Average	0.7	0.9	1.0	1.1	1.0	1.0	1.2	1.3
2	1	Cement stabilized Blend I	29	Heavy clay	43	0+12.5		0.1	0.2	0.2	0.1	--	0.3	--	0.4
						0+25.0		0.1	0.1	0.1	0.1	--	0.3	--	0.5
						0+37.5		0.1	0.1	0.2	0.1	--	0.3	--	0.4
							Average	0.1	0.1	0.2	0.1	--	0.3	--	0.4
2	2	Cement stabilized Blend II	12	Blend II	60	0+62.5		0.3	0.3	0.3	0.4	--	0.6	--	0.8
						0+75.0		0.1	0.1	0.5	0.4	--	0.7	--	1.0
						0+87.5		0.2	0.3	0.5	0.7	--	0.9	--	1.2
							Average	0.2	0.2	0.4	0.5	--	0.7	--	1.0
2	3	Lean mix concrete	12	Blend II	90	1+12.5		0.1	0.1	0.2	0.2	--	0.3	--	0.2
						1+25.0		0.1	0.1	0.1	0.1	--	0.2	--	0.1
						1+37.5		0.2	0.1	0.1	0.2	--	0.2	--	0.2
							Average	0.1	0.1	0.1	0.2	--	0.2	--	0.2
2	4	Cement stabilized Blend I	12	Blend II	60	1+62.5		0.1	0.2	0.3	0.8	--	0.9	--	0.9
						1+75.0		0.1	0.1	0.2	0.4	--	0.5	--	0.7
						1+87.5		0.1	0.2	0.1	0.3	--	0.3	--	0.6
							Average	0.1	0.2	0.2	0.5	--	0.6	--	0.7
2	5	Cement stabilized Blend II	16	Silt	56	2+12.5		0.1	0.1	0.1	0.3	--	0.4	--	0.6
						2+25.0		0.1	0.2	0.2	0.4	--	0.5	--	0.4
						2+37.5		0.1	0.1	0.2	0.2	--	0.3	--	0.2
							Average	0.1	0.1	0.2	0.3	--	0.4	--	0.4
3	1	Crushed limestone	29	Heavy clay	43	0+12.5		0.2	0.2	0.2	0.3	--	0.2	--	0.3
						0+25.0		0.1	0.1	0.2	0.3	--	0.1	--	0.3
						0+37.5		0.3	0.2	0.2	0.4	--	0.1	--	0.3
							Average	0.2	0.2	0.2	0.3	--	0.1	--	0.3
3	2	Crushed limestone	12	Blend II	60	0+62.5		0.4	0.5	0.5	0.7	--	0.5	--	0.6
						0+75.0		0.3	0.3	0.5	0.7	--	0.4	--	0.6
						0+87.5		0.5	0.5	0.5	0.7	--	0.6	--	0.7
							Average	0.4	0.4	0.5	0.7	--	0.5	--	0.6
3	3	Blend II* (Optimum)	6	Blend II	66	1+12.5		0.8	0.9	1.0	1.2	--	1.0	--	1.2
						1+25.0		0.9	0.9	1.0	1.1	--	1.0	--	1.1
						1+37.5		0.5	0.8	0.7	0.9	--	0.8	--	0.9
							Average	0.7	0.9	0.9	1.1	--	0.9	--	1.1
3	4	Blend I** (Optimum)	12	Blend II	60	1+62.5		0.8	0.8	0.9	1.0	--	0.9	--	1.1
						1+75.0		0.6	0.8	0.9	1.0	--	0.9	--	1.1
						1+87.5		0.5	0.7	0.8	1.0	--	0.7	--	0.9
							Average	0.6	0.8	0.9	1.0	--	0.8	--	1.0
3	5	Blend II**	16	Silt	56	2+12.5		0.2	0.2	0.5	0.6	--	0.5	--	0.6
						2+25.0		0.3	0.6	0.5	0.8	--	0.6	--	0.7
						2+37.5		0.2	0.6	0.6	0.8	--	0.7	--	0.8
							Average	0.2	0.5	0.5	0.7	--	0.6	--	0.7

* Double bituminous surface treatment.

** Single bituminous surface tratement.

Table A20

Post Traffic Test Pit Data - CBR, Moisture Content, and Density

Determinations In and Out of Traffic Lane

					In Traffic Lane					Out of Traffic				
Lane	Item	Material	Depth in.	Station ft	Elevation ft	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %	Elevation ft	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %
1	1	Crushed	Surface	0+37.5	101.00	127	139	1.0	0.2	101.06	150+	140	1.2	0.4
		limestone	6	0+37.5	100.50	125	137	2.0	1.1	100.50	150+	135	2.4	0.9
			12	0+37.5	100.03	92	139	2.3	1.1	100.05	91	138	1.9	1.2
			18	0+37.5	99.58	86	140	1.7	0.8	99.62	76	139	2.0	0.9
			24	0+37.5	99.02	92	132	2.4	1.0	99.09	102	127	2.5	1.0
		Heavy clay	36	0+37.5	98.00	6	89	32.4	28.8	98.00	6	89	33.1	28.4
			48	0+37.5	97.00	5	92	29.7	28.6	97.00	4.8	95	27.3	28.2
			60	0+37.5	96.00	6	88	34.9	29.4	96.00	6	89	33.8	29.0
			72	0+37.5	95.00	7	91	29.3	28.6	95.00	7	94	28.3	28.7
1	2	Crushed	Surface	0+56	101.07	150+	145	0.9	0.1	100.95	150+	142	1.1	0.2
		limestone	6	0+56	100.65	99	139	1.4	0.4	100.57	94	136	1.6	0.4
		Blend II	12	0+56	100.19	45	130	3.0	2.9	100.00	51	129	3.0	2.7
			18	0+56	99.62	26	125	3.4	3.2	99.66	32	124	3.3	3.0
			24	0+56	99.20	21	120	3.6	2.6	99.24	20	120	2.9	2.3
			36	0+56	97.98	34	126	5.1	3.7	98.03	27	125	5.0	3.4
			48	0+56	97.06	21	123	4.3	3.4	97.12	22	123	4.2	3.3
			60	0+56	96.21	9	118	6.5	4.5	96.24	15	122	6.4	4.5
			72	0+56	95.33	54	131	8.1	5.6	95.41	31	127	8.4	5.7
1	3	Blend II	Surface	1+12.5	100.91	24	121	2.2	--	100.98	12	123	1.8	0.7
			6	1+12.5	100.52	43	124	2.7	1.5	100.52	51	120	2.7	1.7
			12	1+12.5	100.23	16	123	2.3	1.6	100.13	29	124	2.6	1.4
			18	1+12.5	99.73	27	124	2.9	1.7	99.70	24	123	3.3	2.2
			24	1+12.5	99.06	11	118	3.7	2.4	99.23	21	120	3.5	2.1
			36	1+12.5	97.95	14	120	3.7	2.8	97.97	21	119	4.5	3.3
			48	1+12.5	96.98	11	121	4.6	3.4	86.86	7	120	5.0	3.1
			60	1+12.5	95.98	8	125	6.2	4.1	95.92	8	127	6.8	4.0
		Lean clay	72	1+12.5	94.57	3	102	21.5	--	94.64	4.3	108	20.0	
1	4	Blend I	Surface	1+75	100.73	16	118	2.4	1.1	100.89	34	124	2.1	1.1
		Blend I	6	1+75	100.50	80	121	2.7	1.9	100.50	53	123	2.6	1.8
		Blend II	12	1+75	100.00	32	120	2.8	1.8	100.00	16	120	3.2	1.6
			18	1+75	99.47	47	121	3.1	2.5	99.60	45	121	3.3	2.7
			24	1+75	98.91	21	118	3.9	2.8	98.90	19	117	4.2	2.9
			36	1+75	97.94	14	120	3.9	2.7	97.96	11	119	4.3	2.7
			48	1+75	96.97	20	122	4.7	3.0	96.93	11	121	4.3	3.5
			60	1+75	95.88	11	122	6.6	3.8	95.92	11	122	6.3	4.2
		Lean clay	72	1+75	94.91	4	101	21.0	18.8	94.91	4	104	21.5	17.4
1	5	Silt	Surface	2+37.5	100.87	72	110	10.7	9.1	101.07	54	112	9.4	8.3
			6	2+37.5	100.61	83	103	15.7	13.4	100.59	34	104	13.5	13.4
			12	2+37.5	100.13	47	105	16.7	13.2	100.13	30	106	14.9	12.9

(Continued)

(Sheet 1 of 3)

Table A20 (Continued)

Lane	Item	Material	Depth in.	Station ft	In Traffic Lane Elevation ft	In Traffic Lane CBR	In Traffic Lane Dry Density -Nuclear- lbs/ft^3	In Traffic Lane Moisture Content -Nuclear- %	In Traffic Lane Moisture Content -Oven Dry- %	Out of Traffic Elevation ft	Out of Traffic CBR	Out of Traffic Dry Density -Nuclear- lbs/ft^3	Out of Traffic Moisture Content -Nuclear- %	Out of Traffic Moisture Content -Oven Dry- %
1	5 (Continued)	Silt	18	2+37.5	99.61	28	107	15.1	15.0	99.65	40	105	17 7	15.1
			24	2+37.5	99.02	20	103	17.5	14.0	98.97	21	102	15.7	15.1
			36	2+37.5	98.12	39	106	19.4	15.8	98.08	23	105	18.3	16.6
			48	2+37.5	97.02	26	108	18.0	16.1	96.99	14	105	18.2	16.9
			60	2+37.5	96.32	29	106	17.7	16.4	96.30	19	104	18.0	16.4
		Lean clay	72	2+37.5	94.95	21	105	17.6	15.3	95.00	20	104	17.4	14.7
2	1	Cement stabilized Blend I	Surface	0+25	100.98	150+	116	4.7	--	101.10	150+	120	6.5	--
		Heavy clay	31	0+25	98.44	6	95	27.7	27.5	98.42	7	94	28.7	29.1
			38	0+25	97.83	5	94	28.8	--	97.91	6	94	28.5	28.7
2	2	Cement stabilized Blend II	Surface	0+56	101.05	150+	118	4.0	--	101.06	150+	119	3.9	--
			6	0+56	100.50	--*	112	4.0	--	100.50	--*	114	4.8	
		Blend II	12	0+56	100.00	8	124	2.5	1.9	100.00	11	125	2.5	2.0
			18	0+56	99.50	19	119	3.2	2.6	99.50	24	119	3.3	2.8
			24	0+56	99.00	11	119	3.2	2.4	99.00	17	118	3.4	2.5
			36	0+56	98.00	29	122	4.5	3.3	98.00	25	118	4.6	3.5
2	3	Lean mix concrete	Surface	1+25	101.00	--	--	--	--	101.00	--	--	--	--
		Blend II	12	1+25	99.94	2.7	106	5.0	--	100.01	20	118	3.4	2.0
			18	1+25	99.54	30	121	3.7	2.5	99.66	27	122	2.9	2.4
			24	1+25	99.09	26	121	3.5	2.8	99.15	30	122	3.7	2.8
			33	1+25	98.33	15	121	4.1	2.9	98.19	17	121	3.7	2.7
2	4	Cement stabilized Blend I	Surface	1+75	101.00	150+	116	4.7	--	101.08	150+	116	4.6	--
		Blend II	12	1+75	99.93	28	123	2.7	1.4	99.93	26	123	2.7	1.9
			18	1+75	99.59	19	119	3.3	2.0	99.62	39	120	3.0	2.2
			24	1+75	99.02	22	119	3.9	2.9	99.03	28	119	3.6	2.7
			36	1+75	97.91	14	119	4.4	2.9	97.90	14	119	4.3	2.9
2	5	Cement stabilized Blend II	Surface	2+25	101.00	150+	119	4.3	--	101.7	150+	123	3.8	--
		Silt	16	2+25	99.63	41	108	16.1	15.8	99.63	55	110	15.9	15.3
			24	2+25	99.20	22	103	16.2	15.8	99.20	17	106	16.0	15.4
			30	2+25	98.71	19	108	14.9	15.0	98.66	17	107	15.2	15.3
			36	2+25	98.00	30	106	17.7	16.6	98.00	25	105	17.6	16.8

(Continued)

* *No CBR's run at 6 in. on cement stabilized material.*

(Sheet 2 of 3)

Table A20 (Concluded)

					In Traffic Lane					Out of Traffic				
Lane	Item	Material	Depth in.	Station ft	Elevation ft	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %	Elevation ft	CBR	Dry Density -Nuclear- lbs/ft^3	Moisture Content -Nuclear- %	Moisture Content -Oven Dry- %
3	1	Crushed limestone	Surface	0+25	101.07	124	143	1.0	0.2	101.10	150+	143	1.2	0.2
			6	0+25	100.53	125+	137	1.7	1.0	100.63	100+	135	1.8	0.9
			12	0+25	100.26	135+	141	1.8	1.1	100.25	130+	137	2.0	1.3
			18	0+25	99.57	100	132	1.8	1.0	99.59	98	130	2.1	1.1
			24	0+25	99.38	101	130	2.3	1.1	99.19	144	138	2.1	1.3
			30	0+25	98.85	109	138	2.2	1.1	98.79	117	140	2.7	1.2
		Heavy clay	36	0+25	98.00	6	91	31.5	29.9	98.00	5	93	30.6	29.6
			42	0+25	97.50	3.7	90	32.1	31.7	97.50	5	90	32.5	30.9
3	2	Crushed limestone	Surface	0+75	101.00	150+	146	1.2	0.5	100.97	125+	138	1.2	0.2
			6	0+75	100.42	41	134	1.7	0.6	100.39	50	129	1.8	0.4
		Blend II	12	0+75	99.63	56	123	3.2	2.6	100.08	50	126	3.3	2.6
			18	0+75	99.47	26	123	3.9	2.7	99.52	20	123	3.9	2.6
			24	0+75	98.80	16	118	3.6	3.0	98.92	20	119	3.8	2.9
3	3	Blend II	Surface	1+25	100.91	134	124	3.6	5.9	101.02	96	131	3.0	2.6
			6	1+25	100.60	90	127	2.9	2.7	100.49	36	124	3.5	2.8
			12	1+25	99.90	32	120	3.5	2.2	99.87	32	122	3.4	2.1
			18	1+25	99.30	18	121	3.6	2.3	99.36	32	122	3.2	2.3
			24	1+25	98.82	18	118	3.4	2.7	98.94	23	119	3.8	2.9
			36	1+25	98.31	25	120	4.1	3.1	98.33	31	123	4.2	3.3
			48	1+25	97.34	20	117	4.4	2.6	97.33	21	120	4.5	3.0
			60	1+25	96.00	14	120	5.8	3.6	96.00	19	122	5.9	3.5
			72	1+25	95.00	42	131	7.8	5.3	95.00	65	132	7.8	5.4
3	4	Blend I	Surface	1+75	101.00	123	119	3.5	3.1	101.03	78	122	3.9	3.5
		Blend I	6	1+75	100.59	35	121	3.9	3.2	100.53	30	120	4.2	3.3
		Blend II	12	1+75	99.99	38	124	3.1	2.2	100.04	21	121	3.9	2.2
			18	1+75	99.49	9	118	3.5	2.6	99.49	14	121	3.1	3.0
			24	1+75	99.27	8	119	3.4	2.5	99.27	6	121	3.3	2.5
3	5	Blend II	Surface	2+25	100.95	105	124	4.2	3.3	101.06	86	129	3.6	3.1
			6	2+25	100.61	63	126	4.0	3.6	100.53	23	125	4.9	3.8
			12	2+25	100.11	42	129	5.2	4.0	100.12	38	128	5.8	5.2
			18	2+25	99.72	24	120	9.3	5.0	99.67	27	116	11.1	6.6
		Silt	24	2+25	99.38	27	106	16.9	15.0	99.38	9	103	16.8	16.3
			36	2+25	98.29	12	102	16.5	15.6	98.39	24	106	16.9	15.0
			48	2+25	97.21	16	107	16.7	15.4	97.21	19	108	16.2	15.9
			60	2+25	96.21	17	104	17.7	16.6	96.29	19	106	17.9	16.1
			72	2+25	95.17	8	102	17.3	15.0	95.08	15	103	16.8	15.0

Photo A1. Proportioning aggregates prior to blending

Photo A2. Blending of aggregates to obtain desired gradation

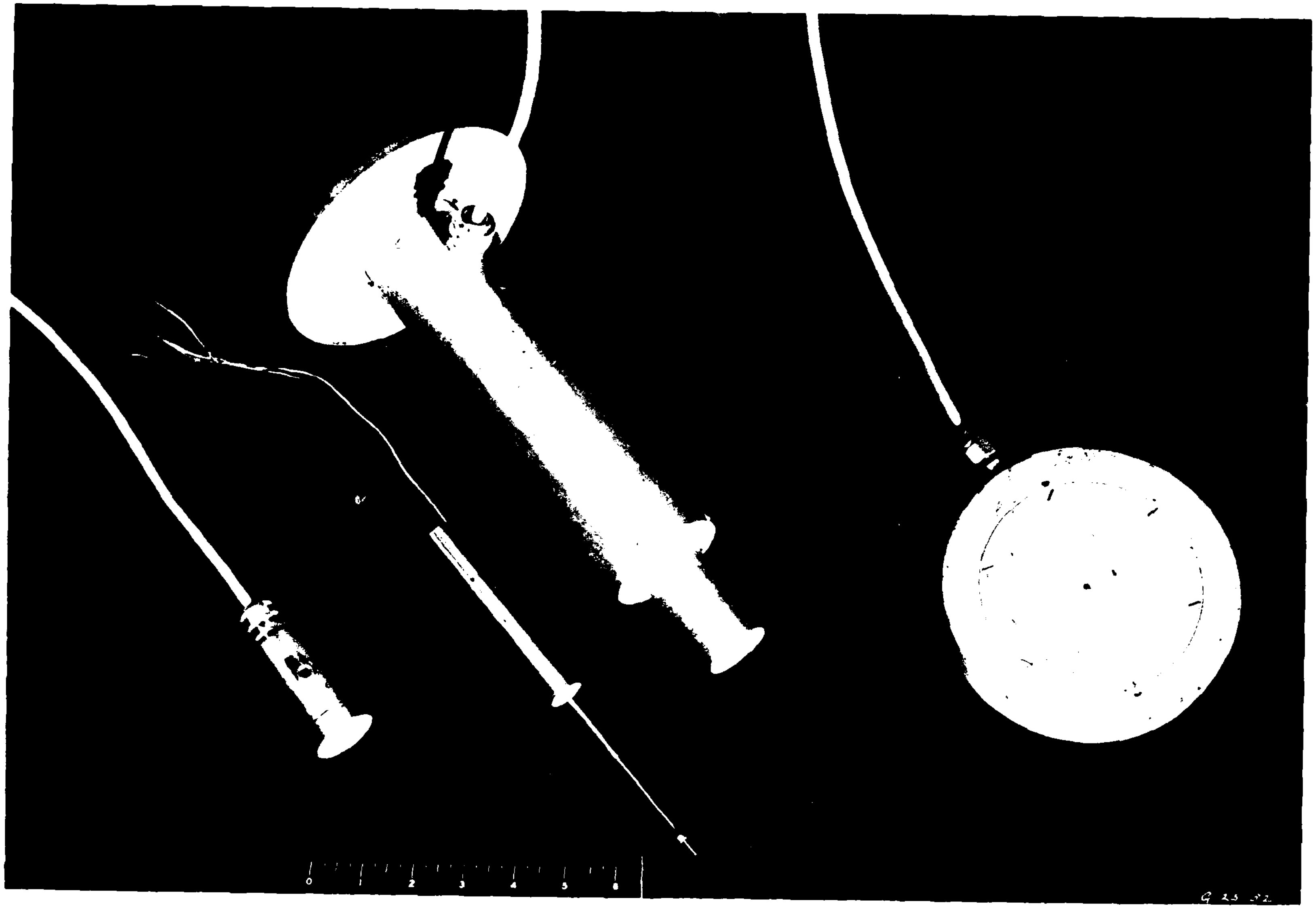


Photo A3. Three types of soil instrumentation gages located in lane 1 (Items 1, 3, and 5)

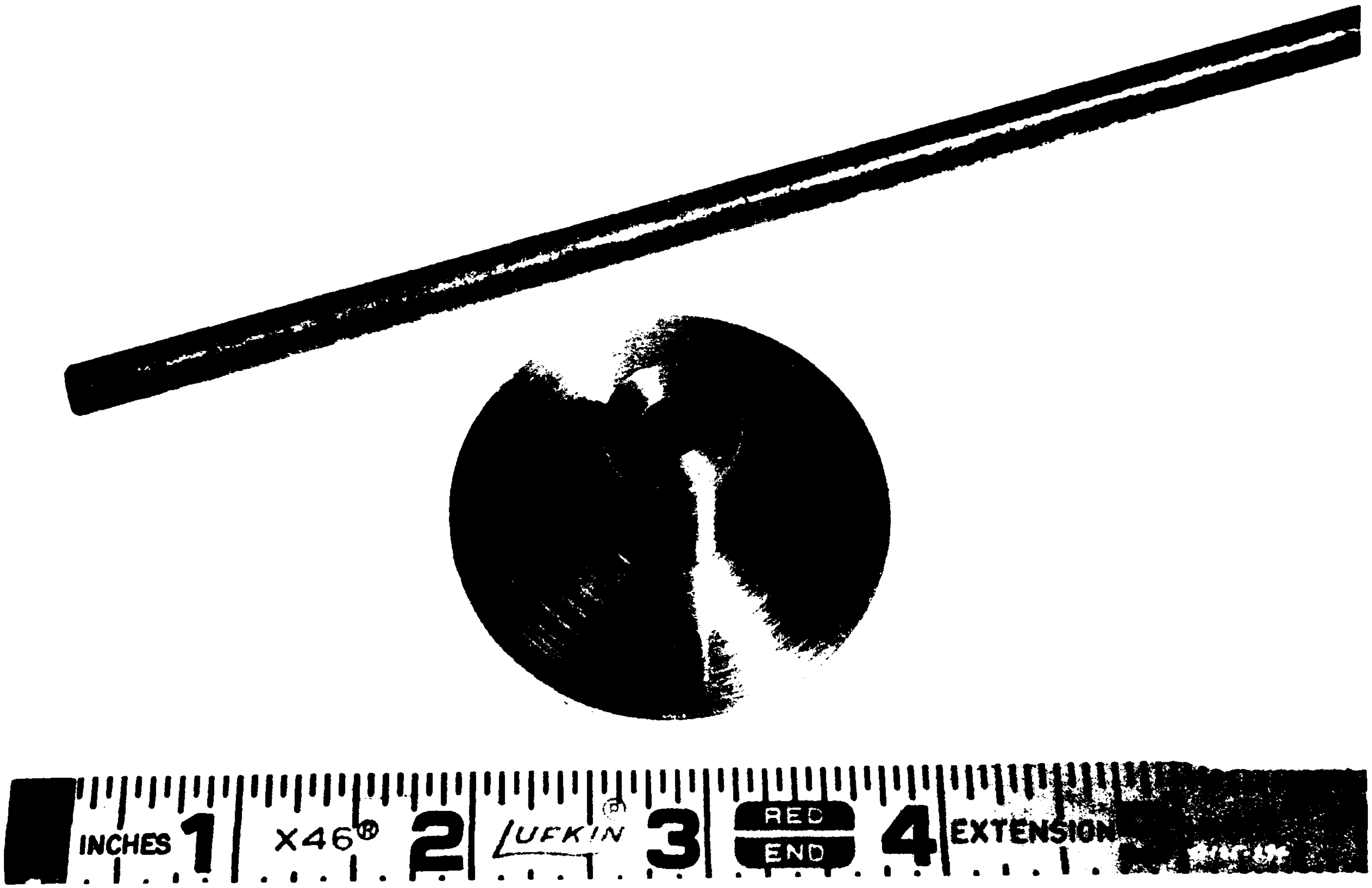


Photo A4. Cap and pin surface deflection gage

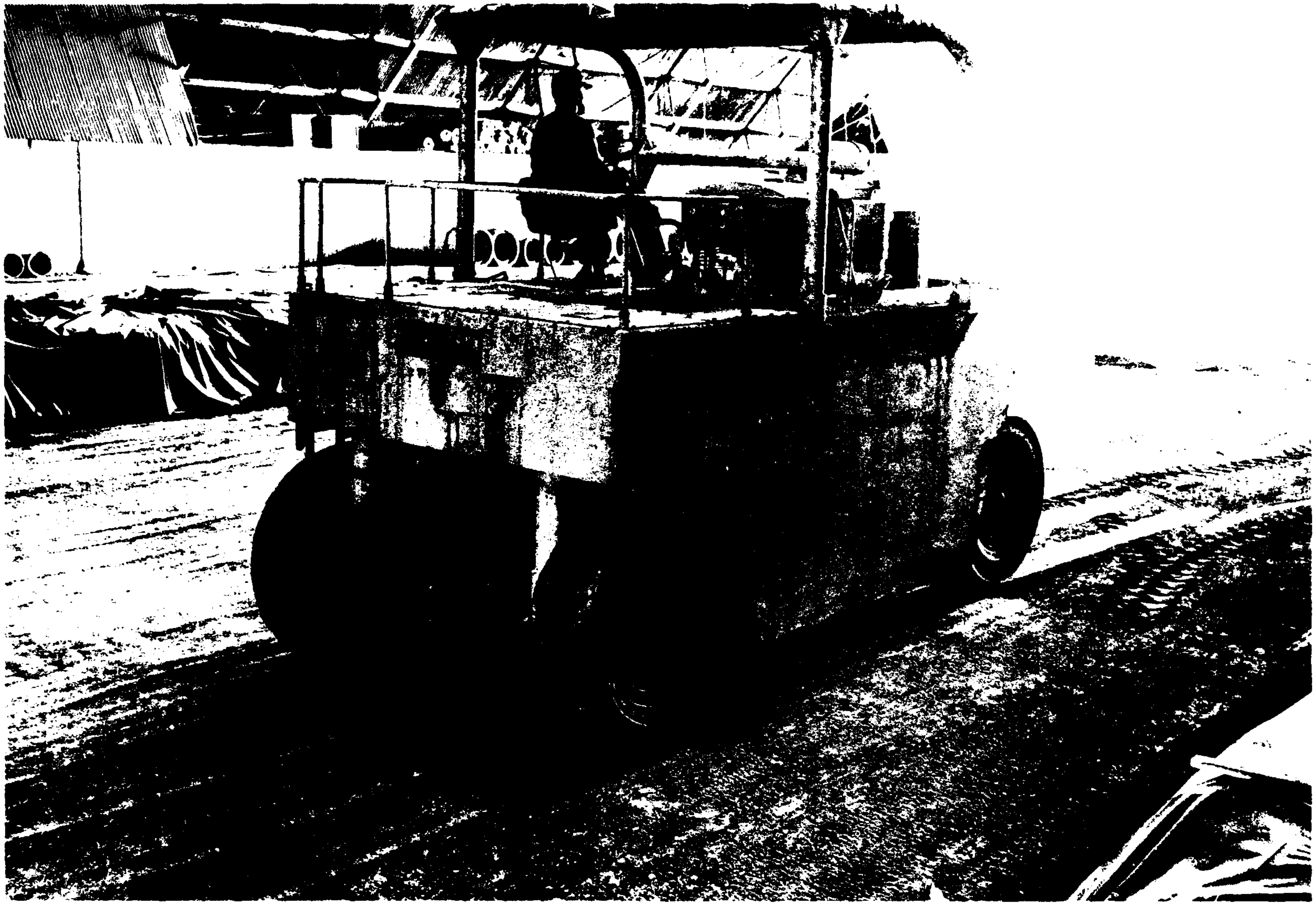


Photo A5. Twenty-five-ton self-propelled rubber-tired roller

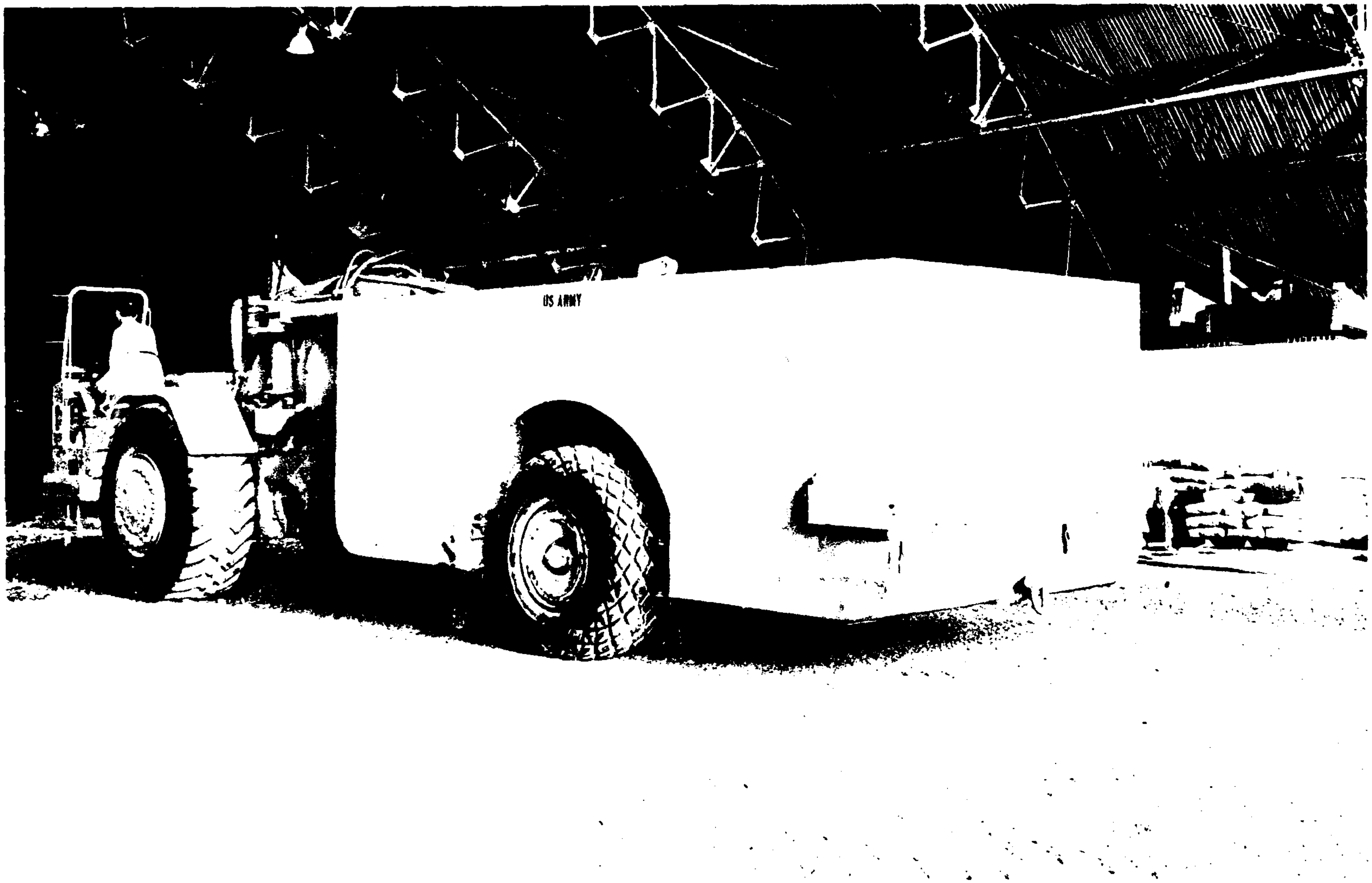


Photo A6. Fifty-ton rubber-tired Bross Roller

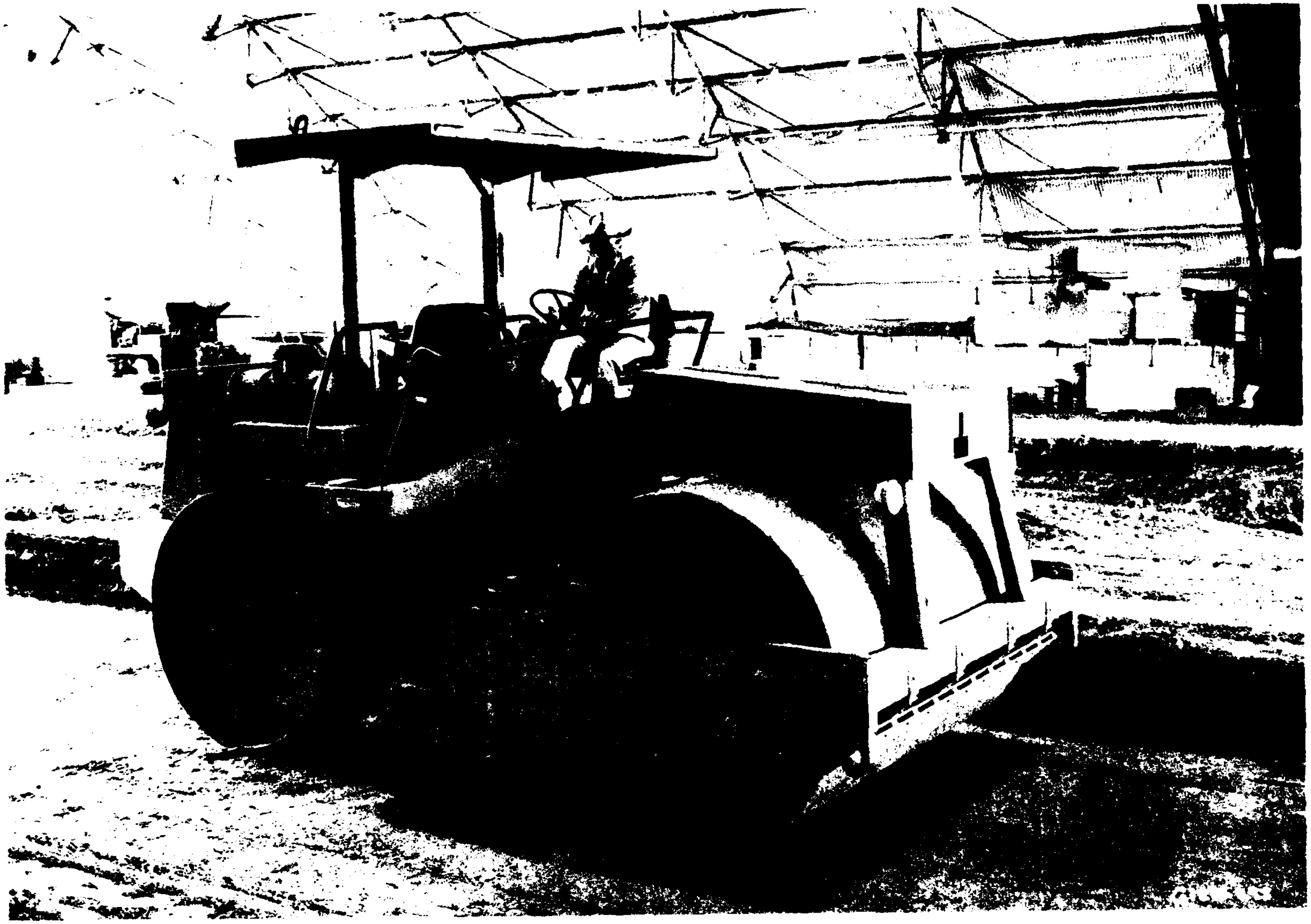


Photo A7. Vibratory steel-wheeled roller

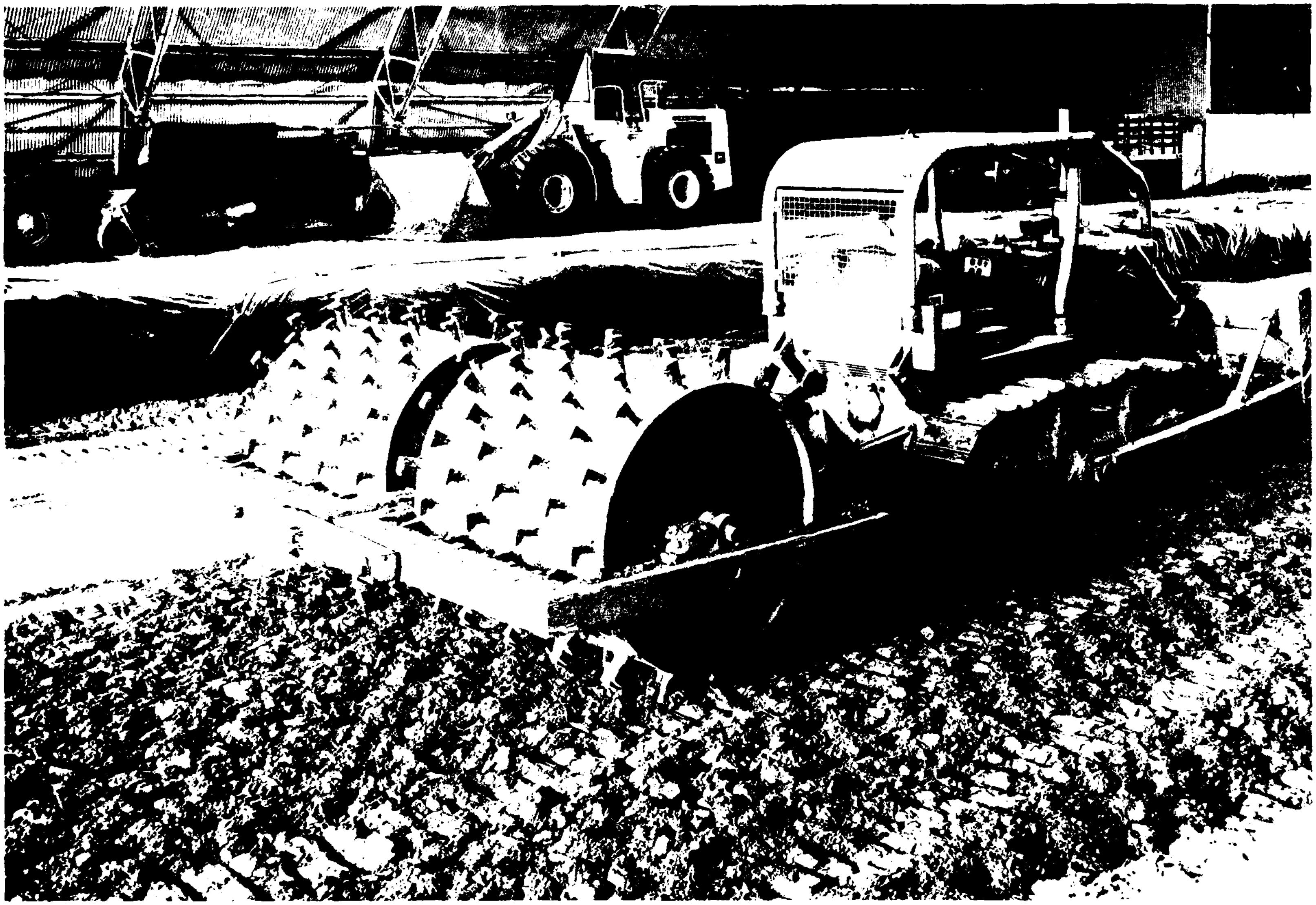


Photo A8. Dual-drum sheepsfoot roller

Photo A9. Excavation for MX test section in progress

Photo A10. Excavation completed, 250 ft long by 50 ft wide by 6 ft deep

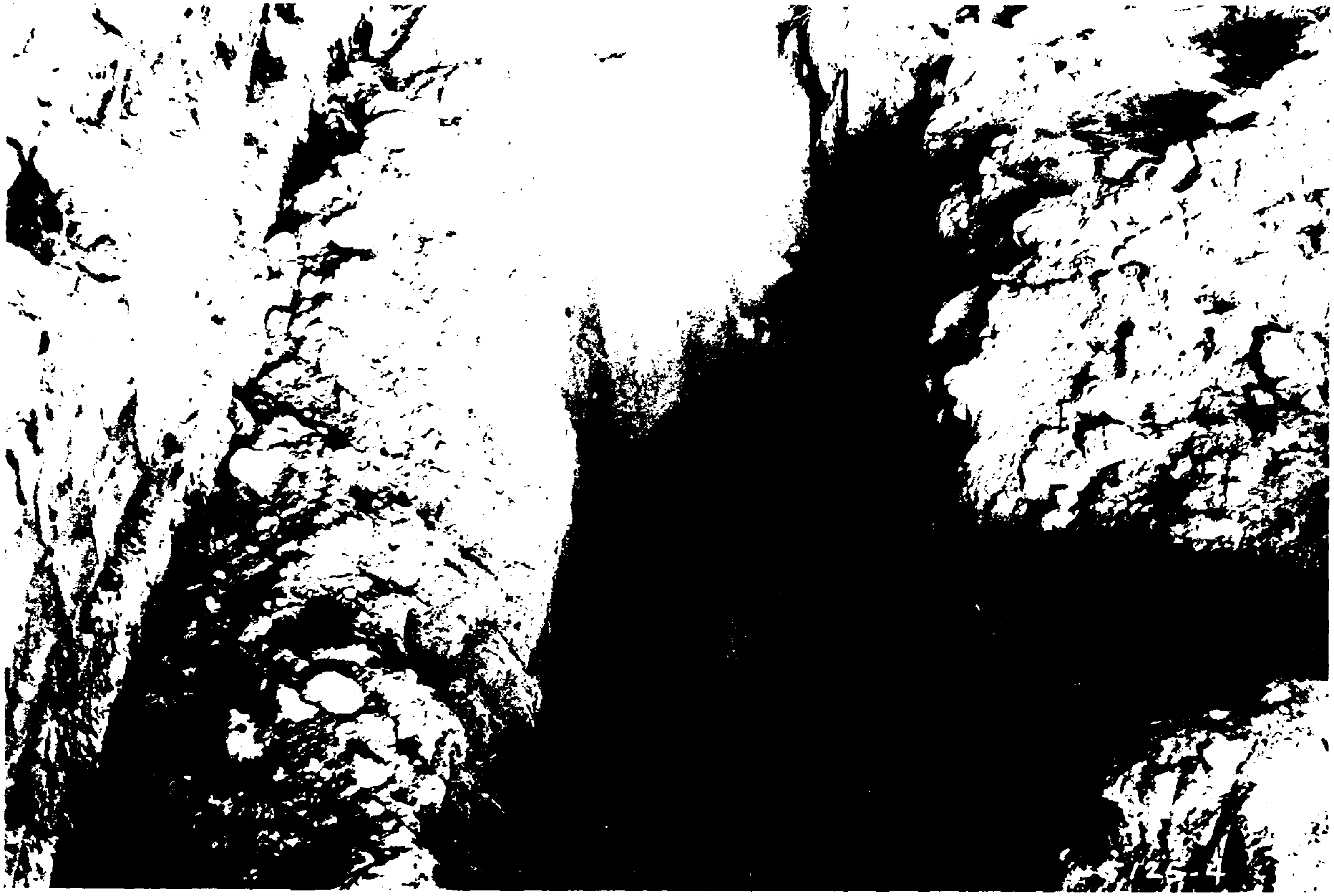
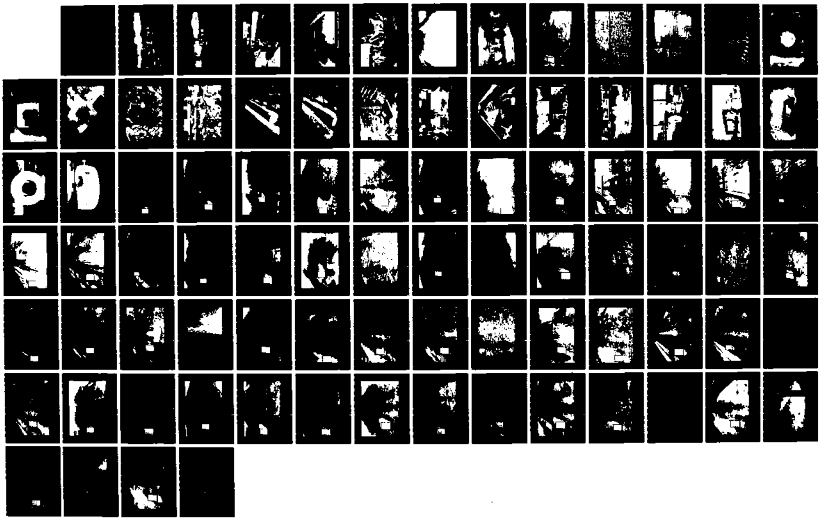


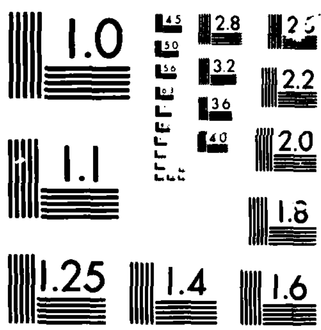
Photo A11. French drain around perimeter of test section

Photo A12. Processing of heavy clay prior to placement in MX test section

AD-A167 671 CORRELATION OF NONDESTRUCTIVE PAVEMENT EVALUATION TEST RESULTS WITH RESUL..(U) ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS GEOTE.. D R ALEXANDER 5/5

UNCLASSIFIED FEB 86 WES/TR/GL-86-1-VOL-2 F/G 14/2 NL





MICROCOP' CHART

Photo A13. Addition of portland cement (Type 1) to blended soil

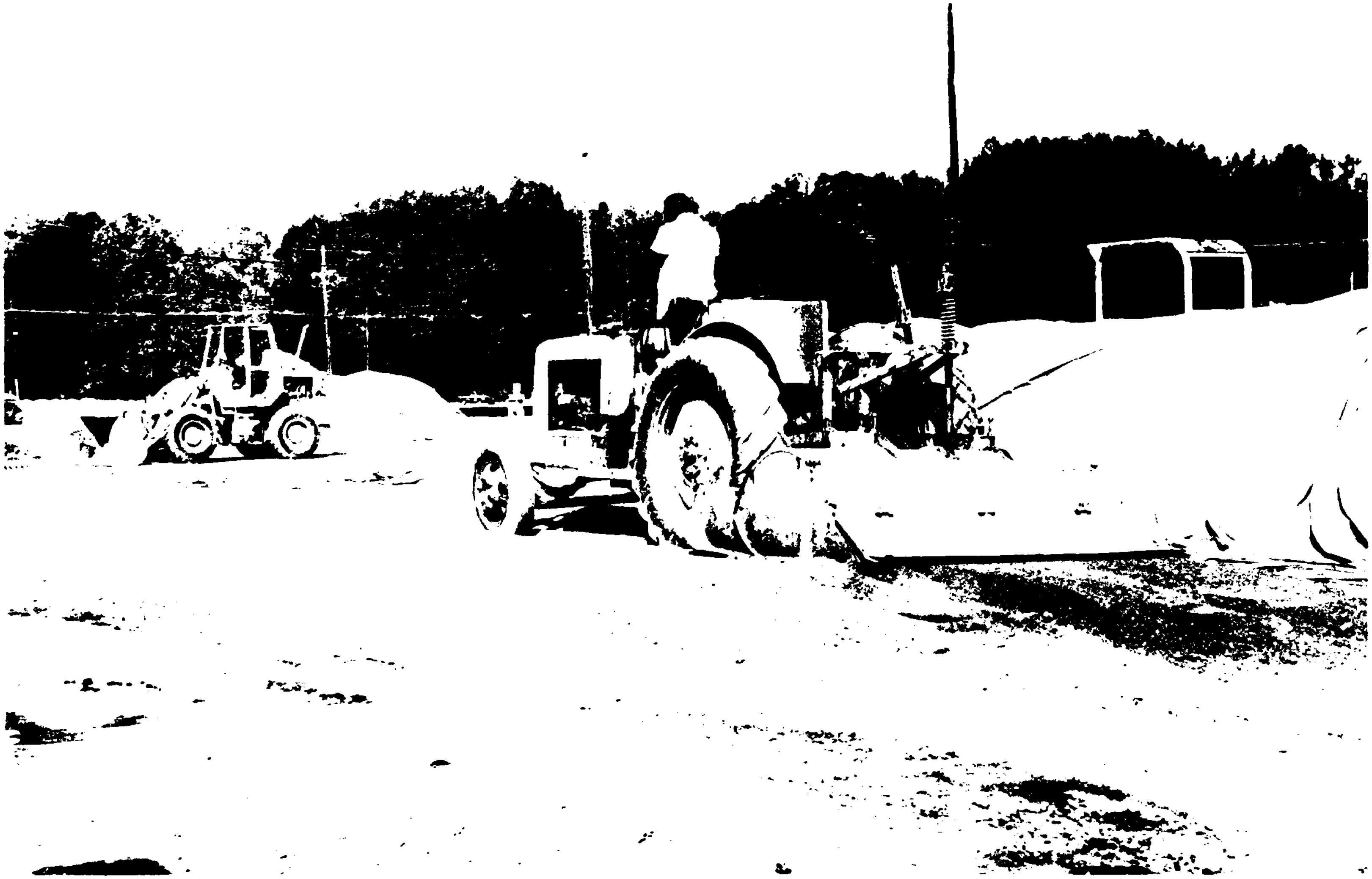


Photo A14. Pulvimixing cement and blended soil

Photo A15. Placing 6-in. lift of Blend II material

Photo A16. Forms for lean mix concrete

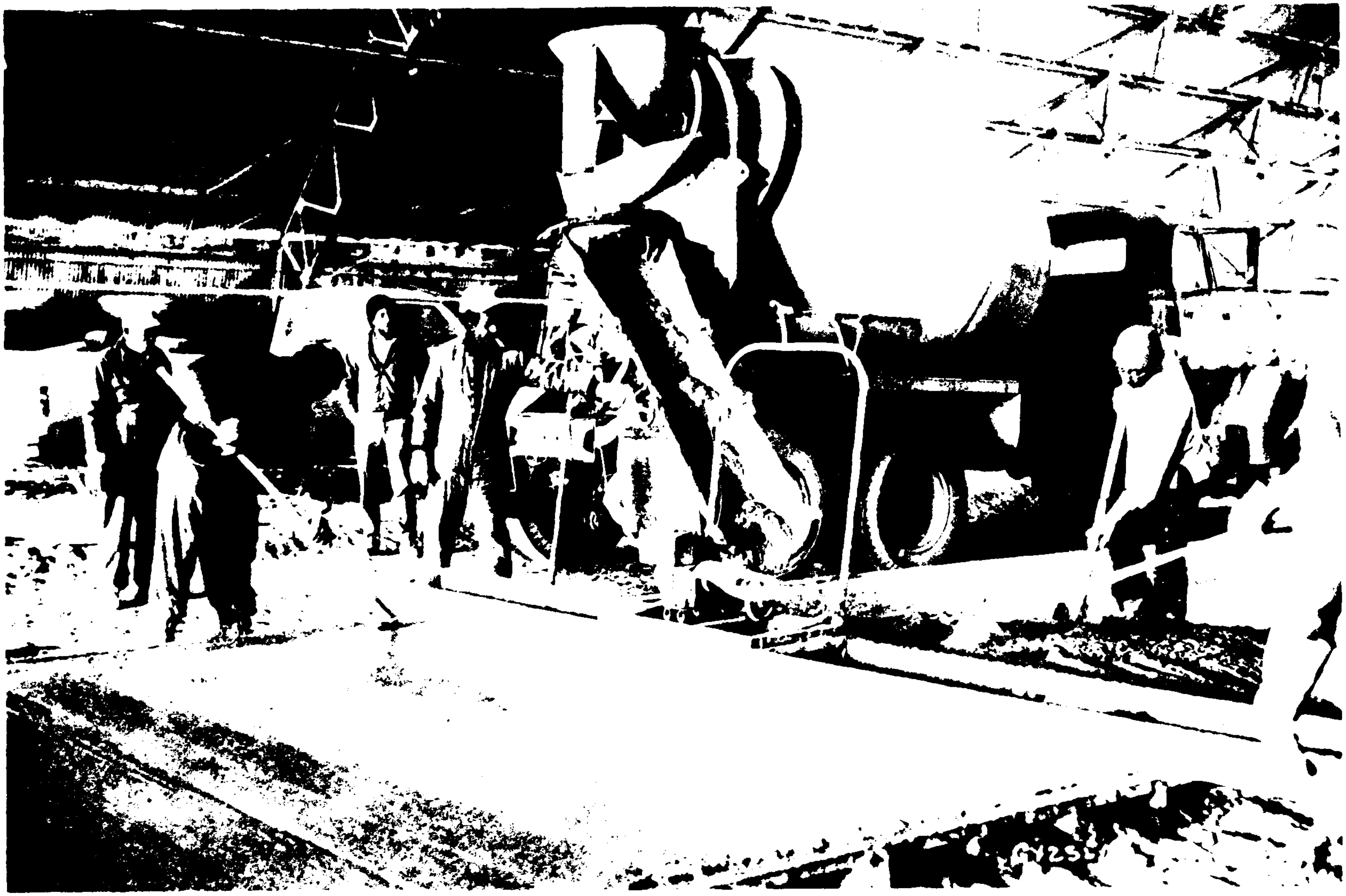


Photo A17. Placement of lean mix concrete (lane 2, Item 3)

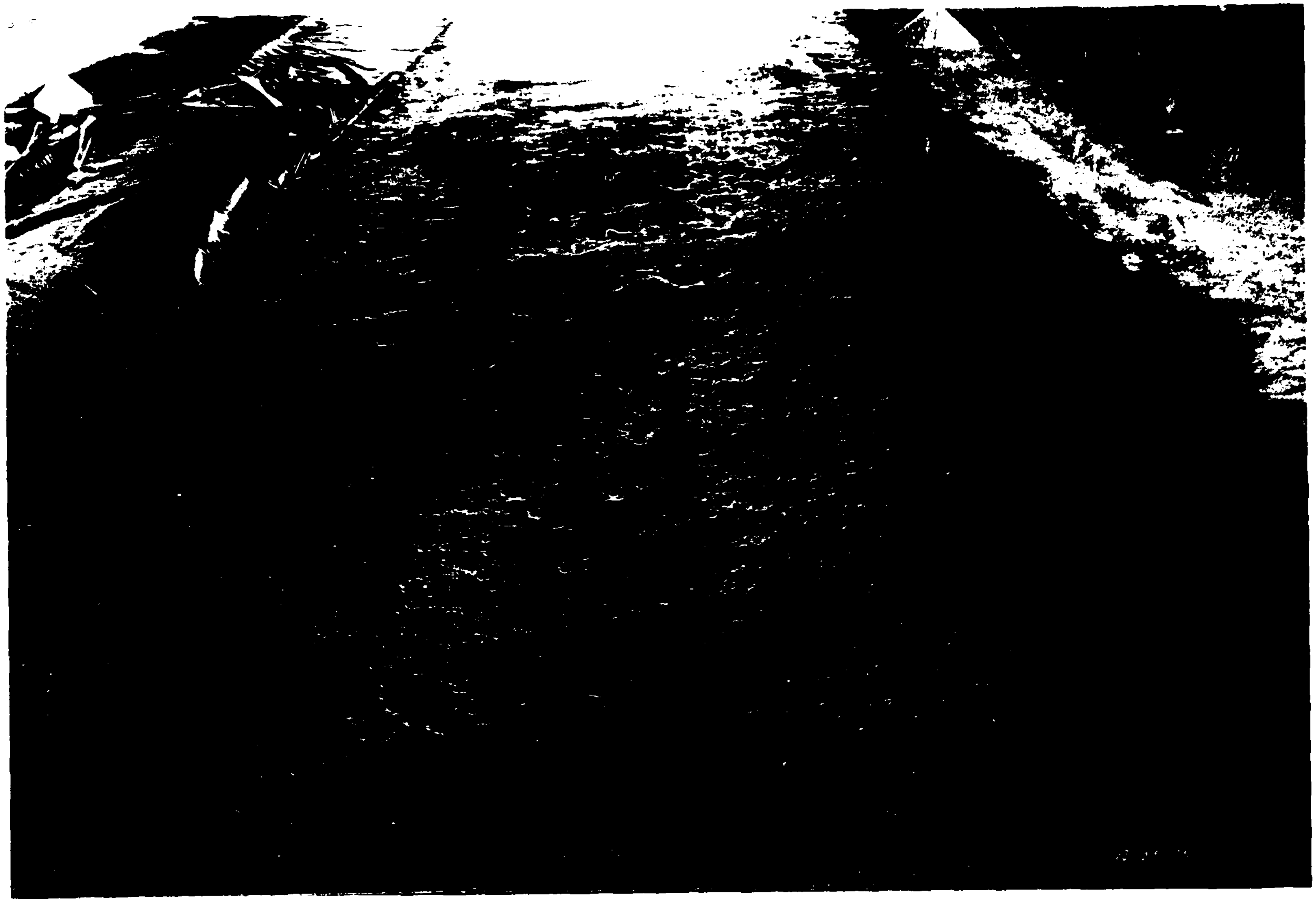
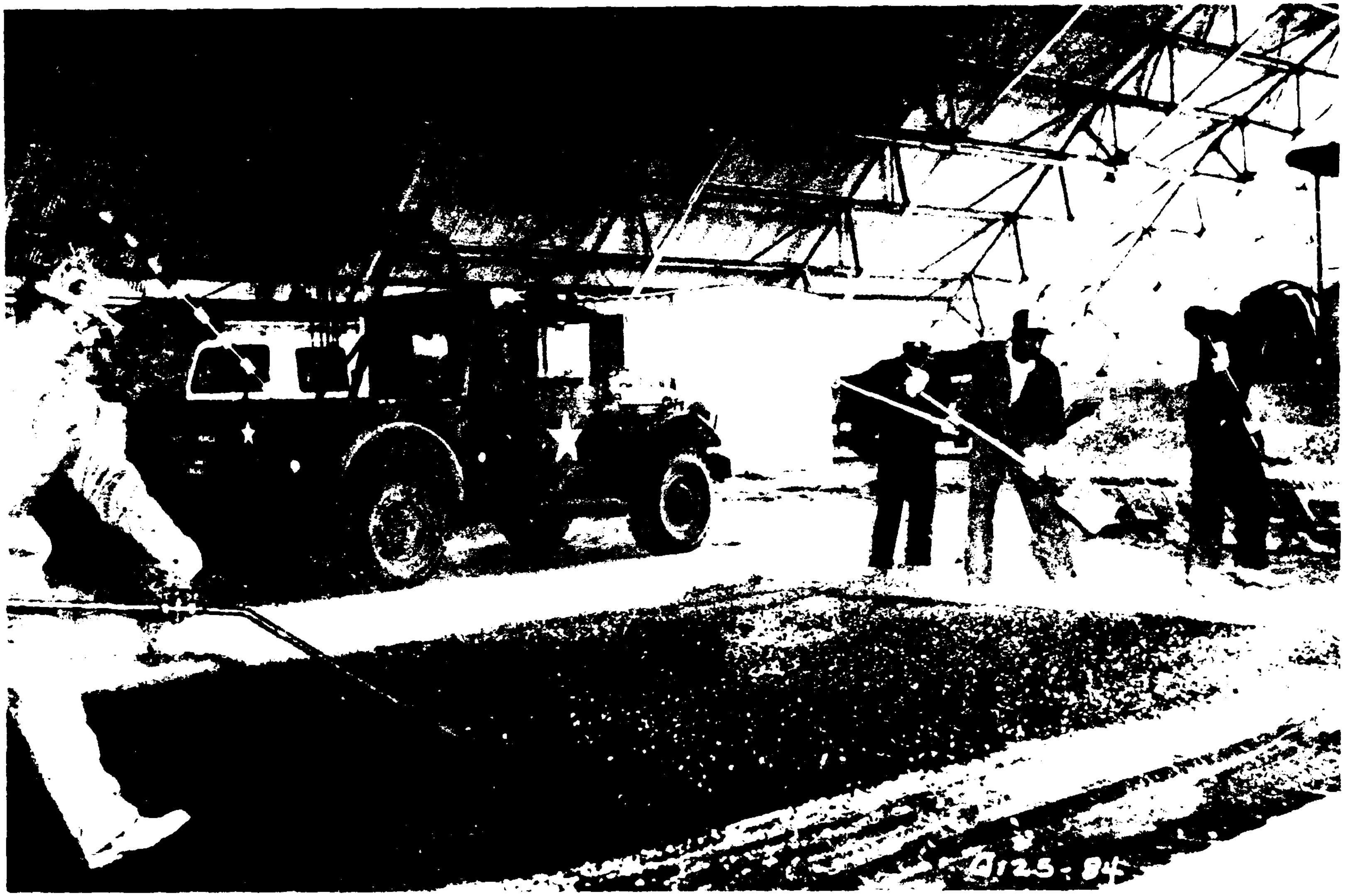


Photo A18. Blend II (lane 3, Item 3) primed with MC-70 cutback asphalt



[illegible] ...tion of RS-3K emulsion and crushed limestone aggregate
([illegible]...le-bituminous surface treatment)

Photo A20. Double-bituminous surface treatment (lane 2, Item 3)

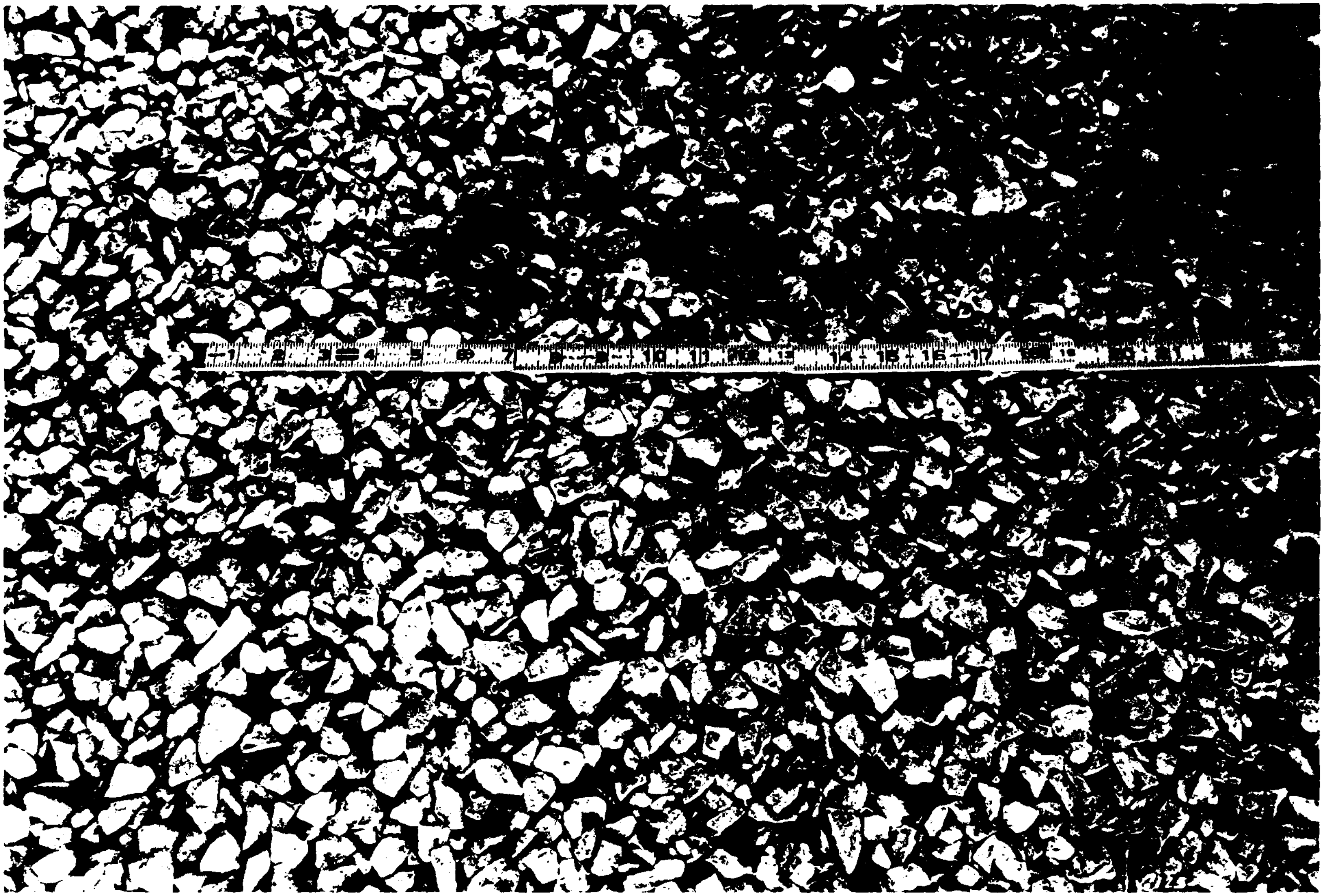


Photo A21. Close-up of double-bituminous surface treatment

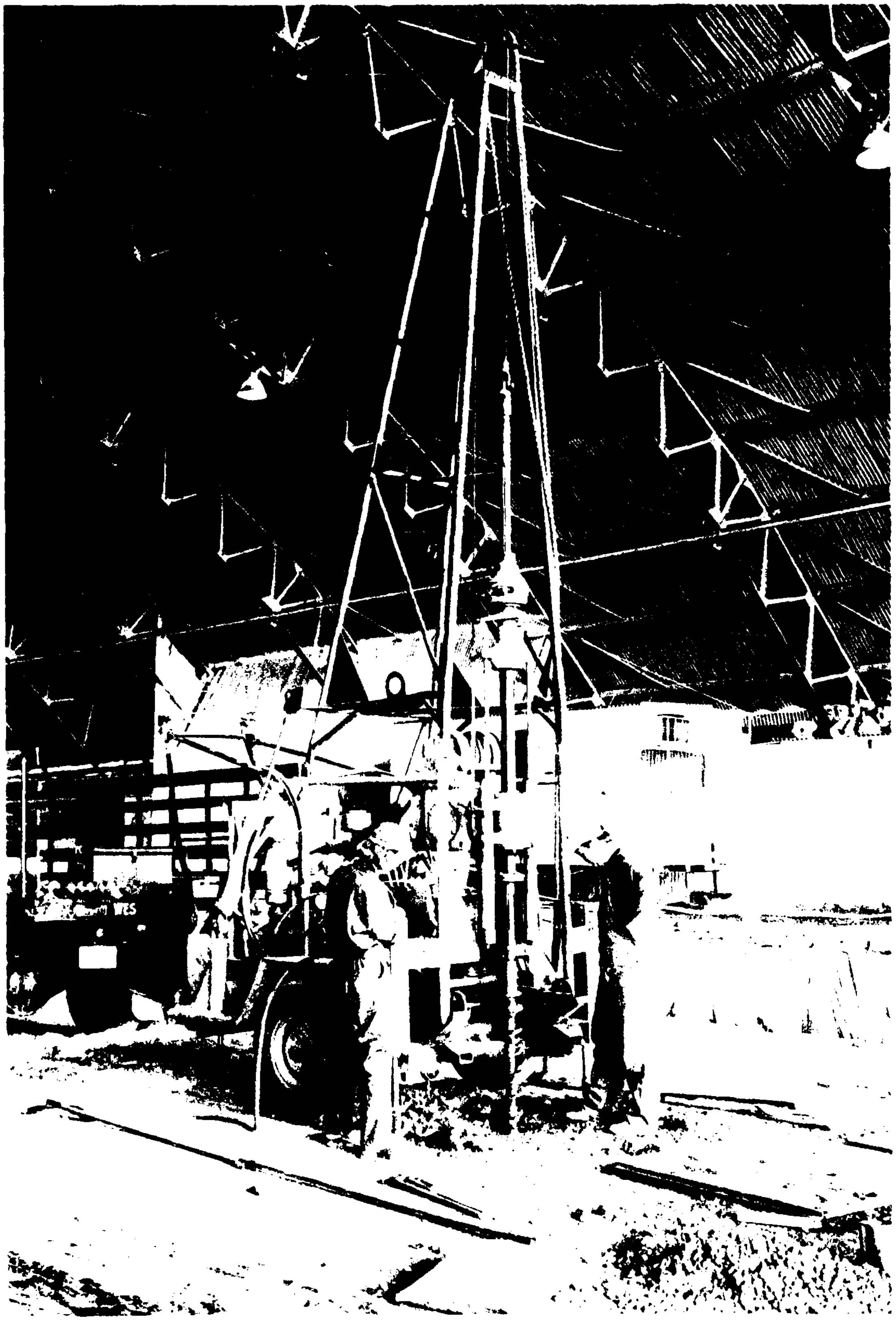


Photo A22. Trailer-mounted drill rig used during LVDT gage installation

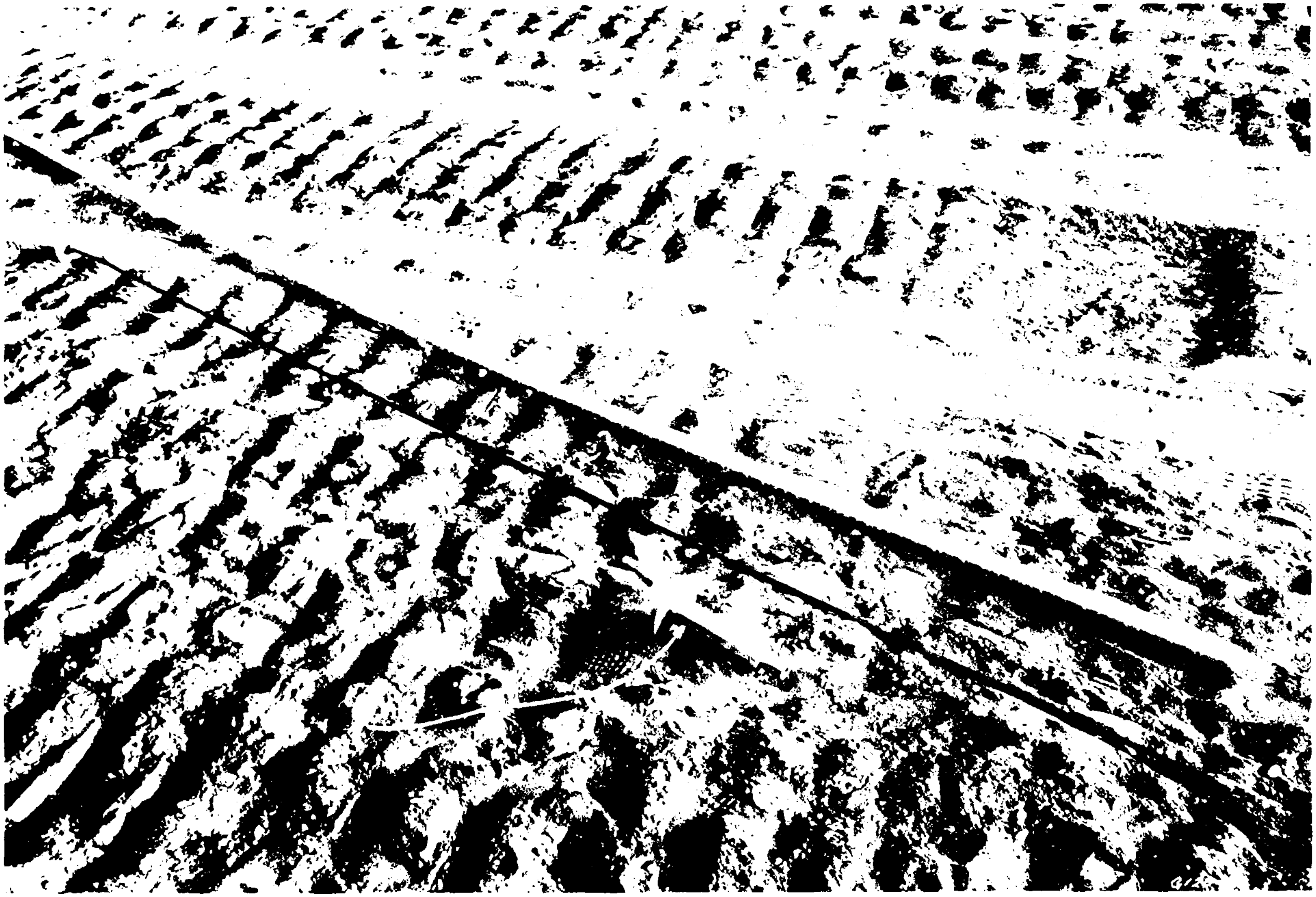


Photo A23. LVDT deflection gage, reference rod, and PVC casing

Photo A24. Reference rod in-place with LVDT core and flexible connecting hose attached

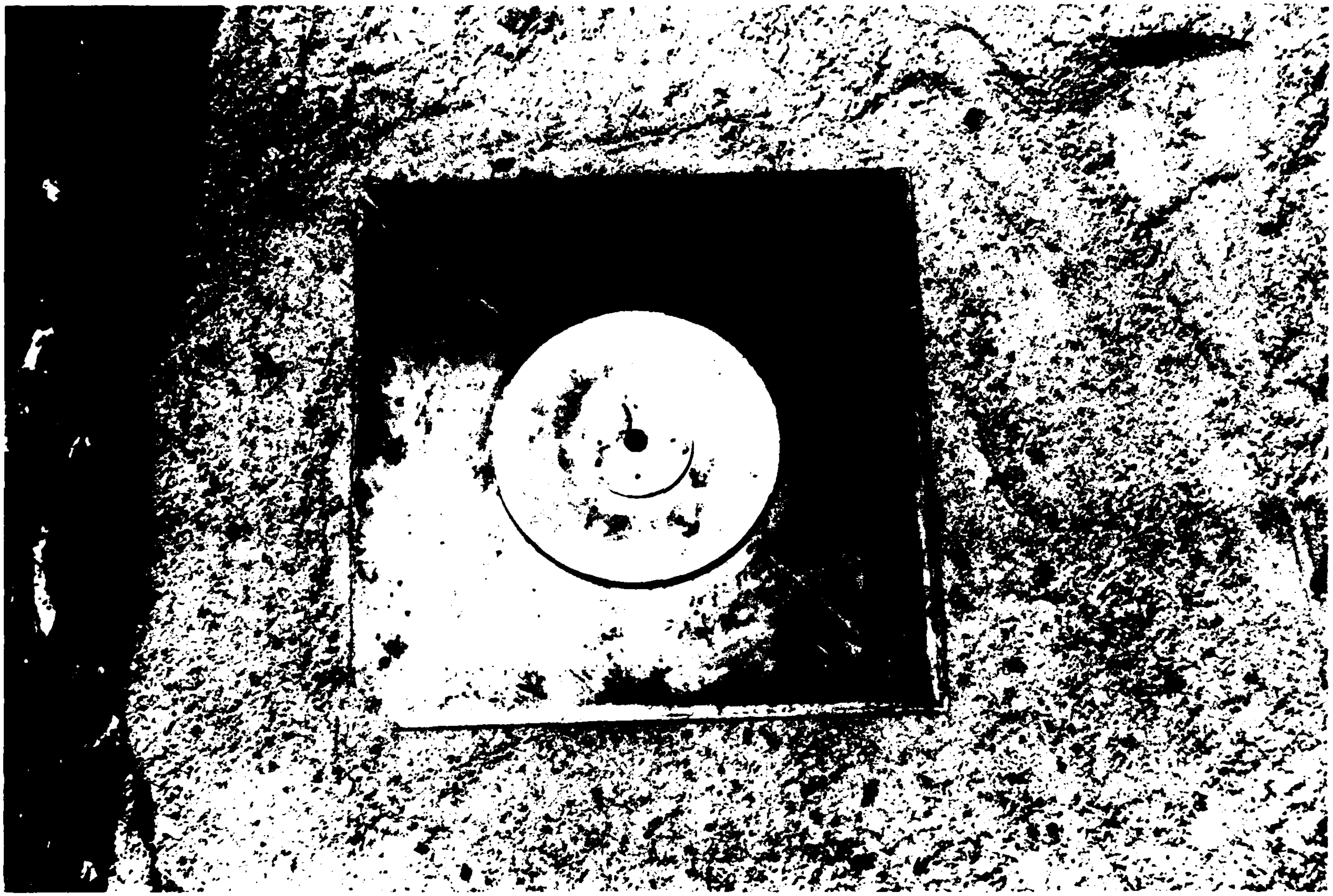


Photo A25. LVDT gage as installed with 1-ft- by 1-ft-steel plate

Photo A26. WES soil pressure cell as installed in the test section

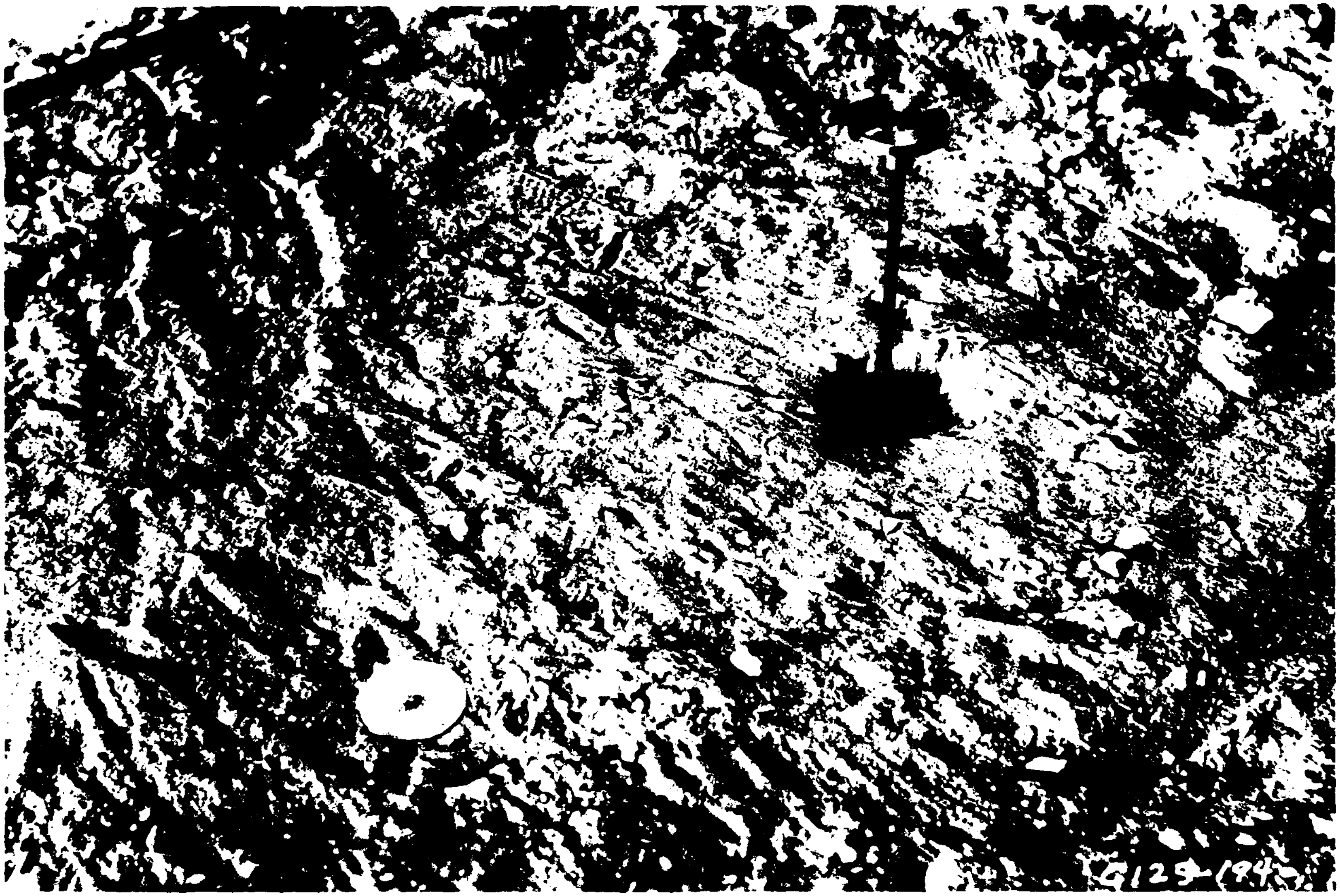


Photo A27. Installation of cap and pin deflection gages

Photo A28. Mechanical whacker used for compaction of backfill above the pipes

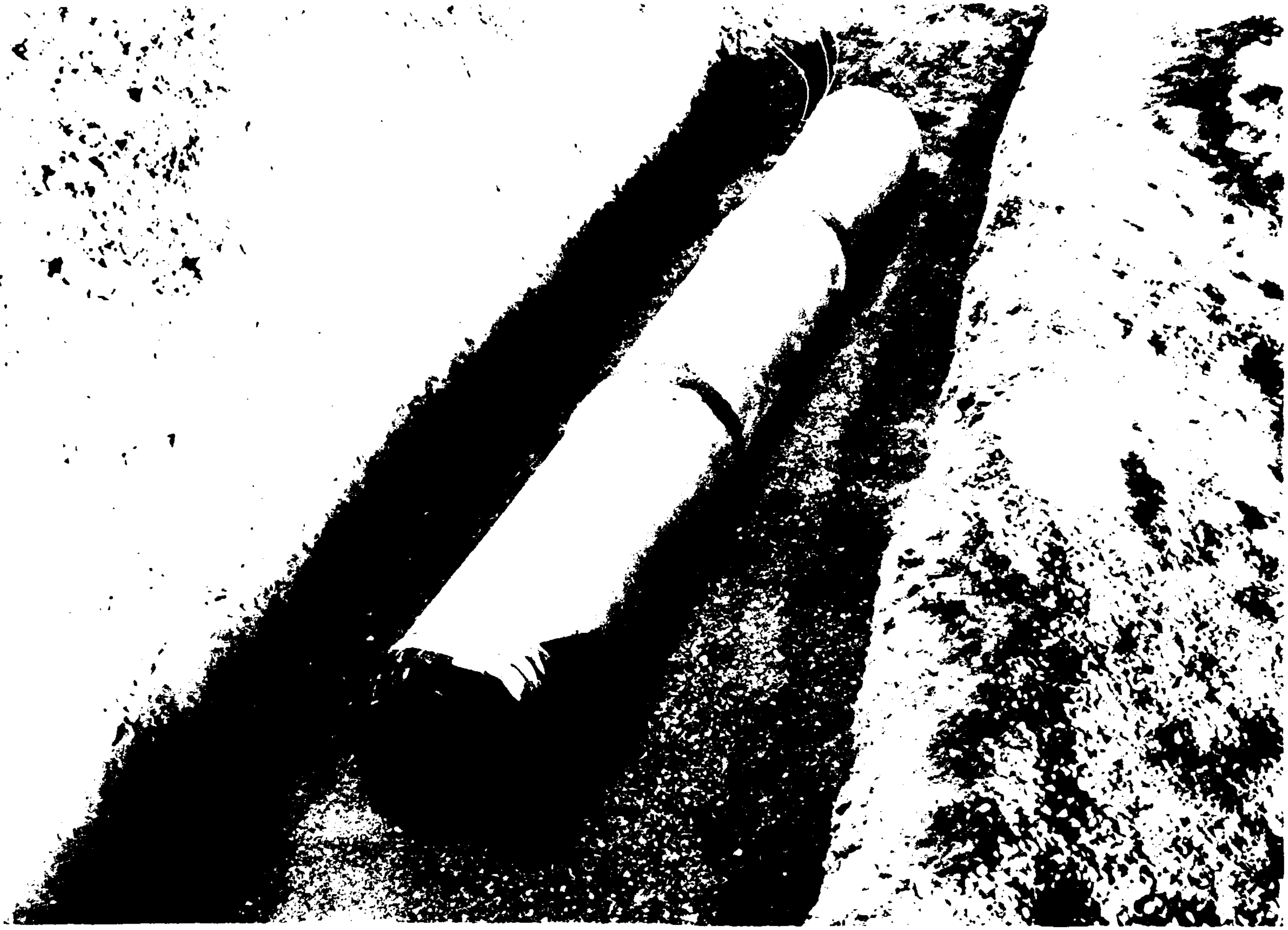


Photo A29. Reinforced concrete pipe as placed in trench during construction

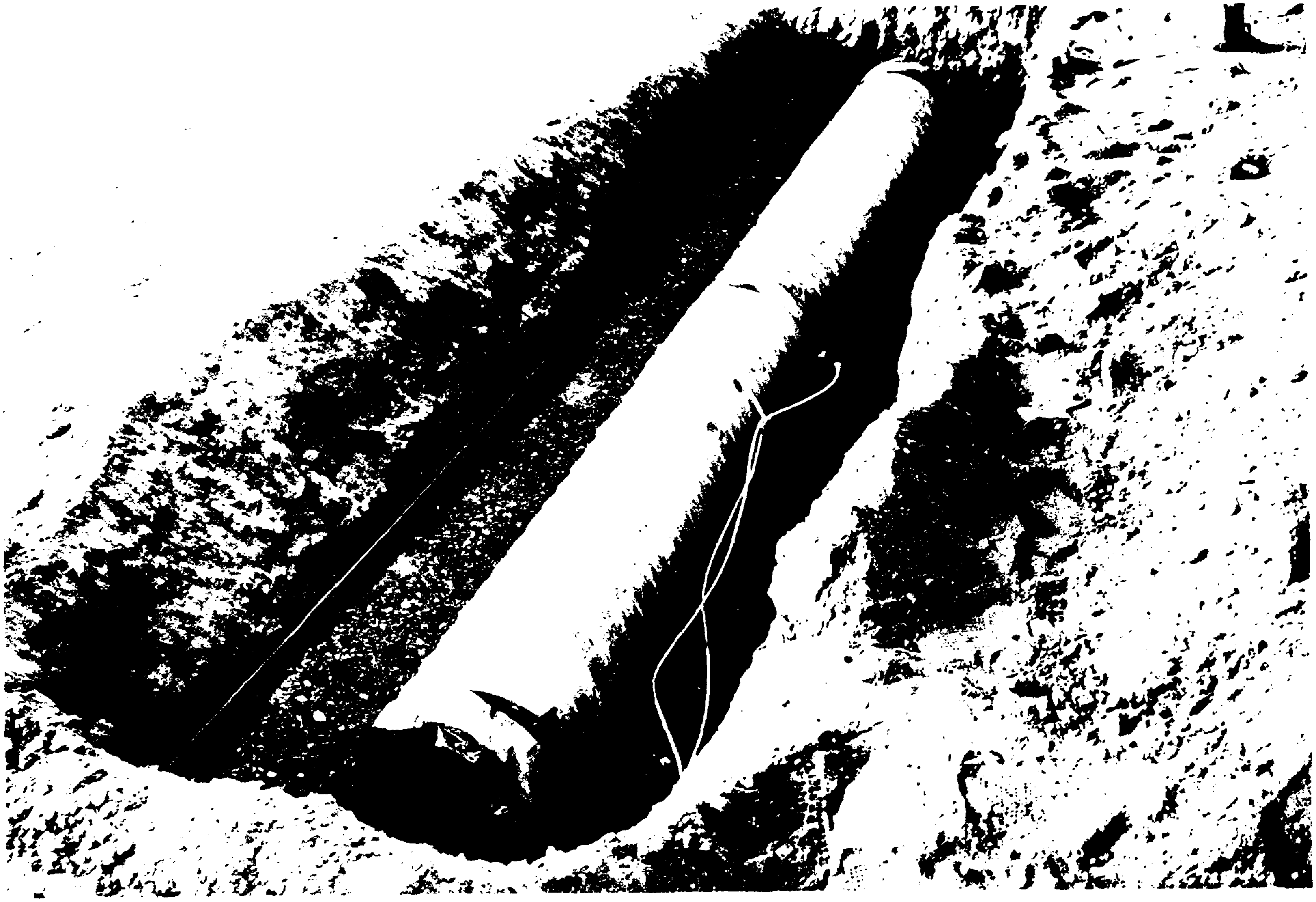


Photo A30. Corrugated steel pipe as placed in trench prior to backfill

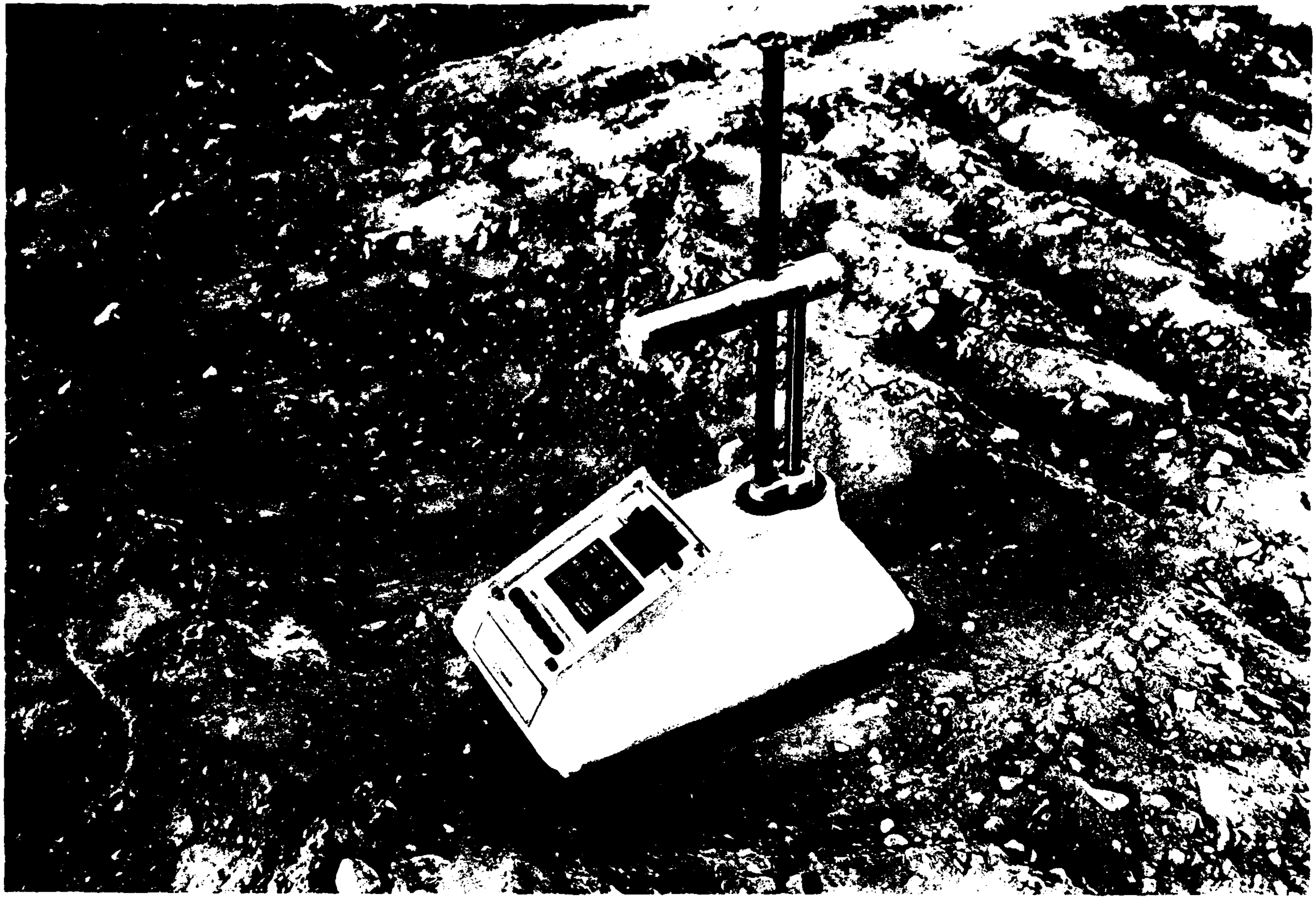


Photo A31. Troxler nuclear gage used for rapid moisture and density determinations

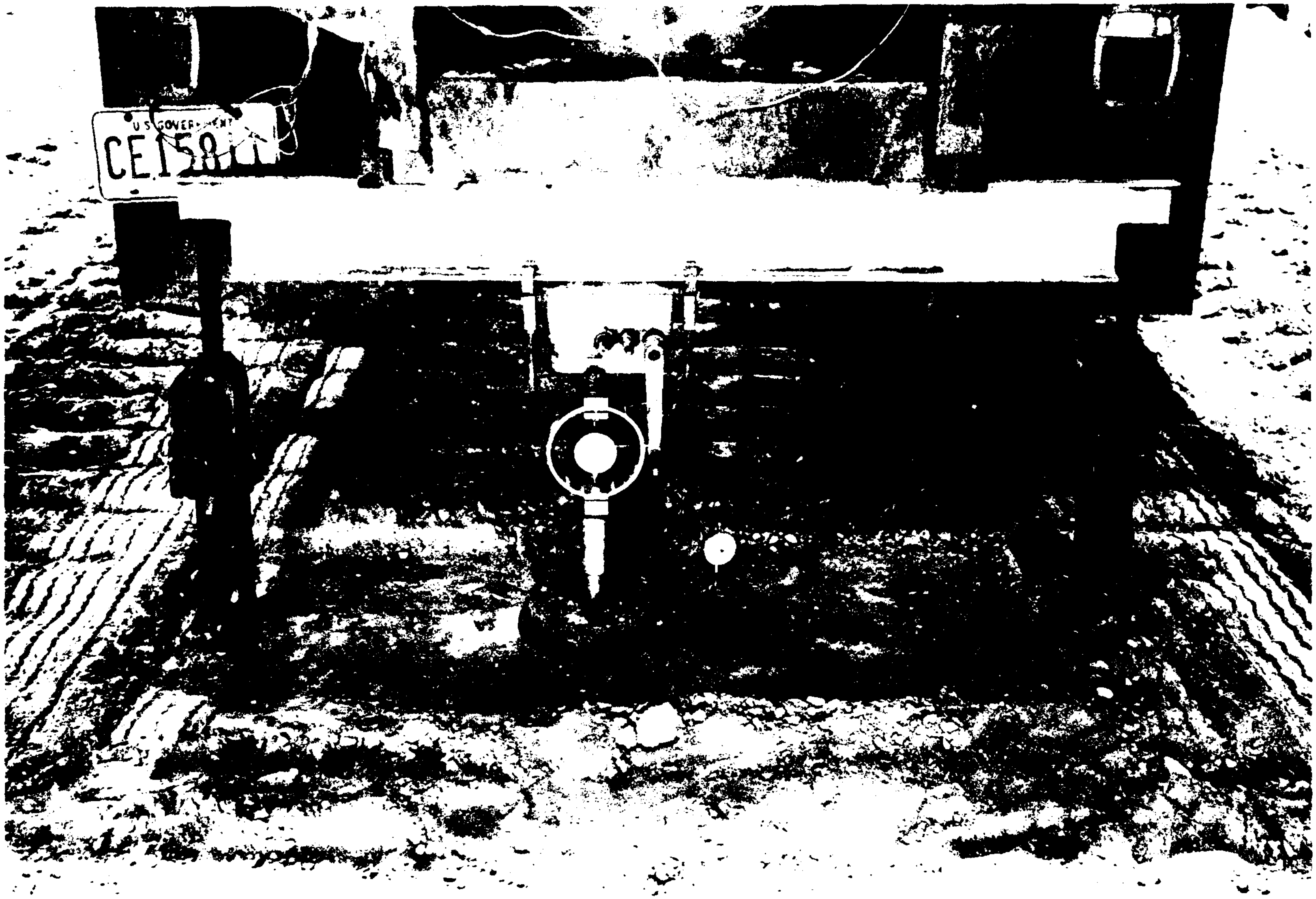


Photo A32. Field CBR equipment setup for in-place soil strength measurements

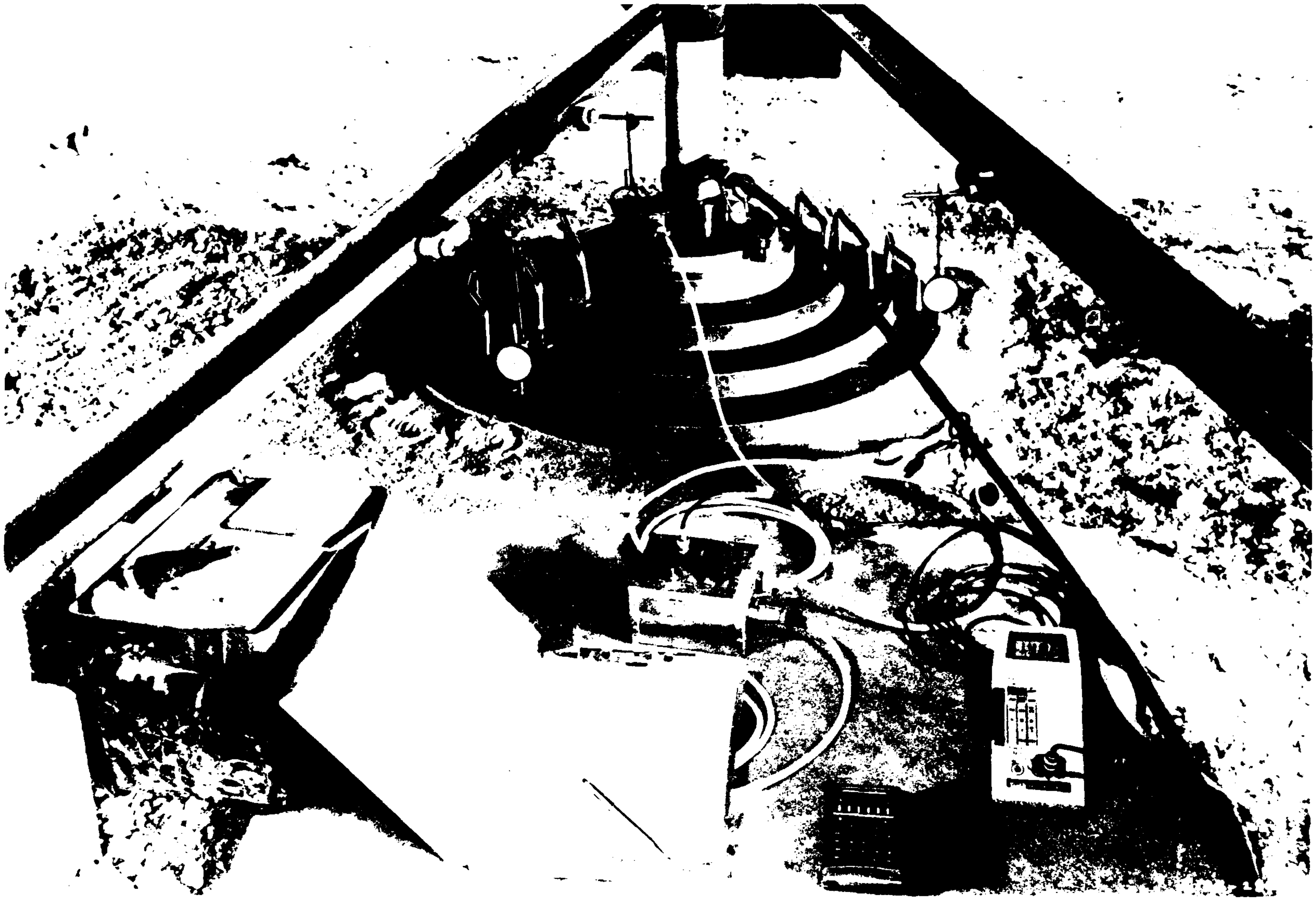


Photo A33. Equipment setup for plate-bearing tests

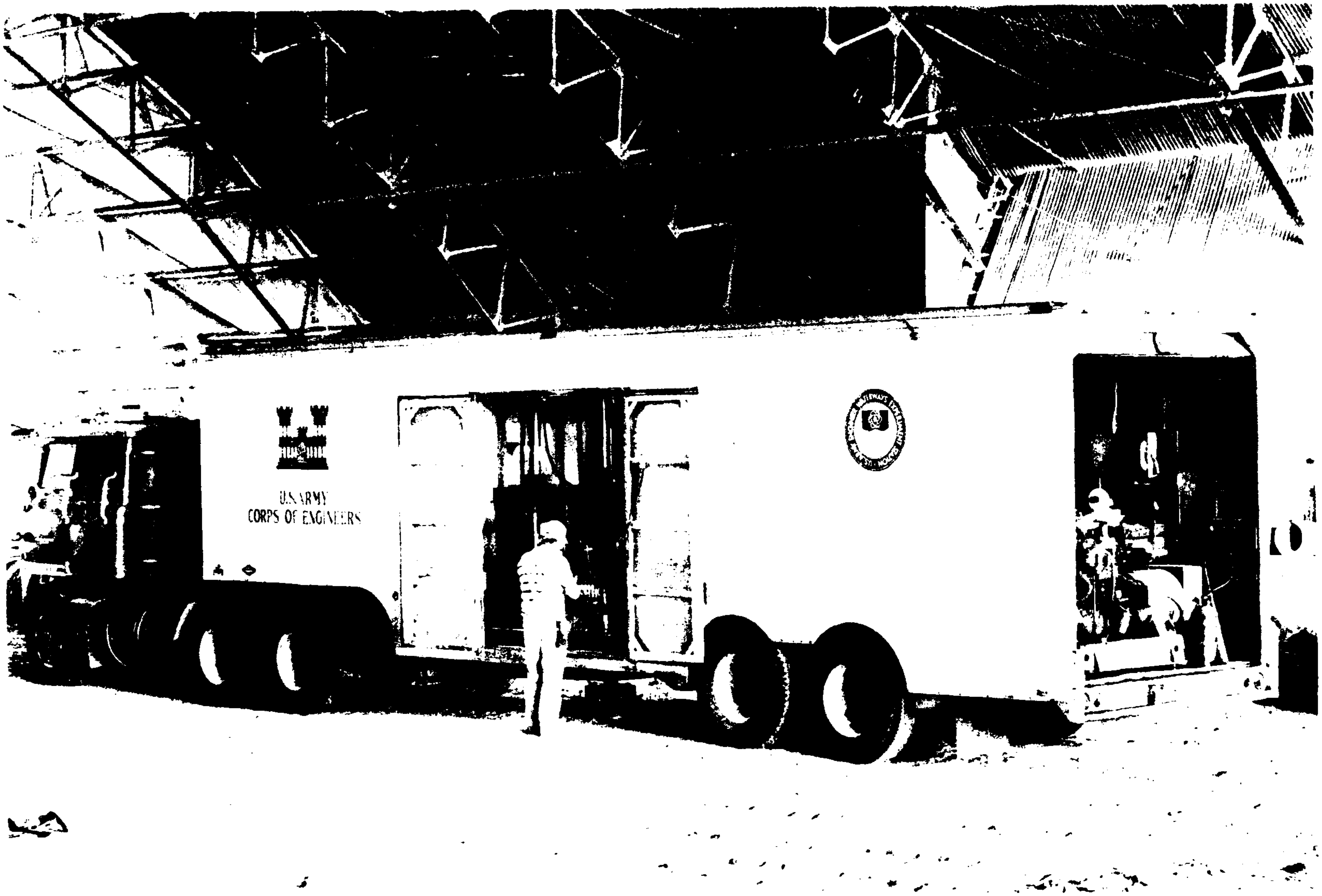


Photo A34. WES 16-kip vibrator

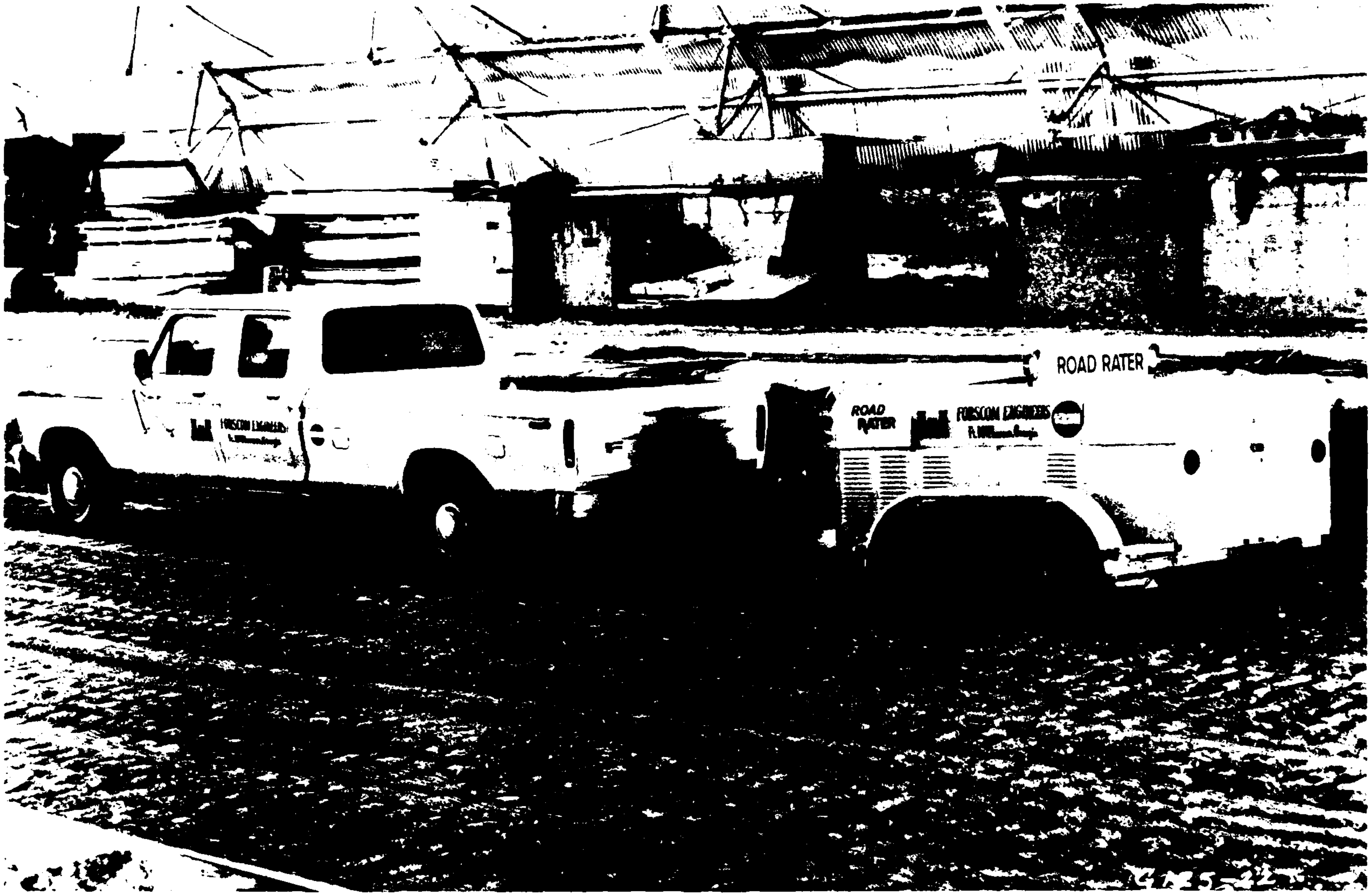


Photo A35. Model 2008 Road Rater

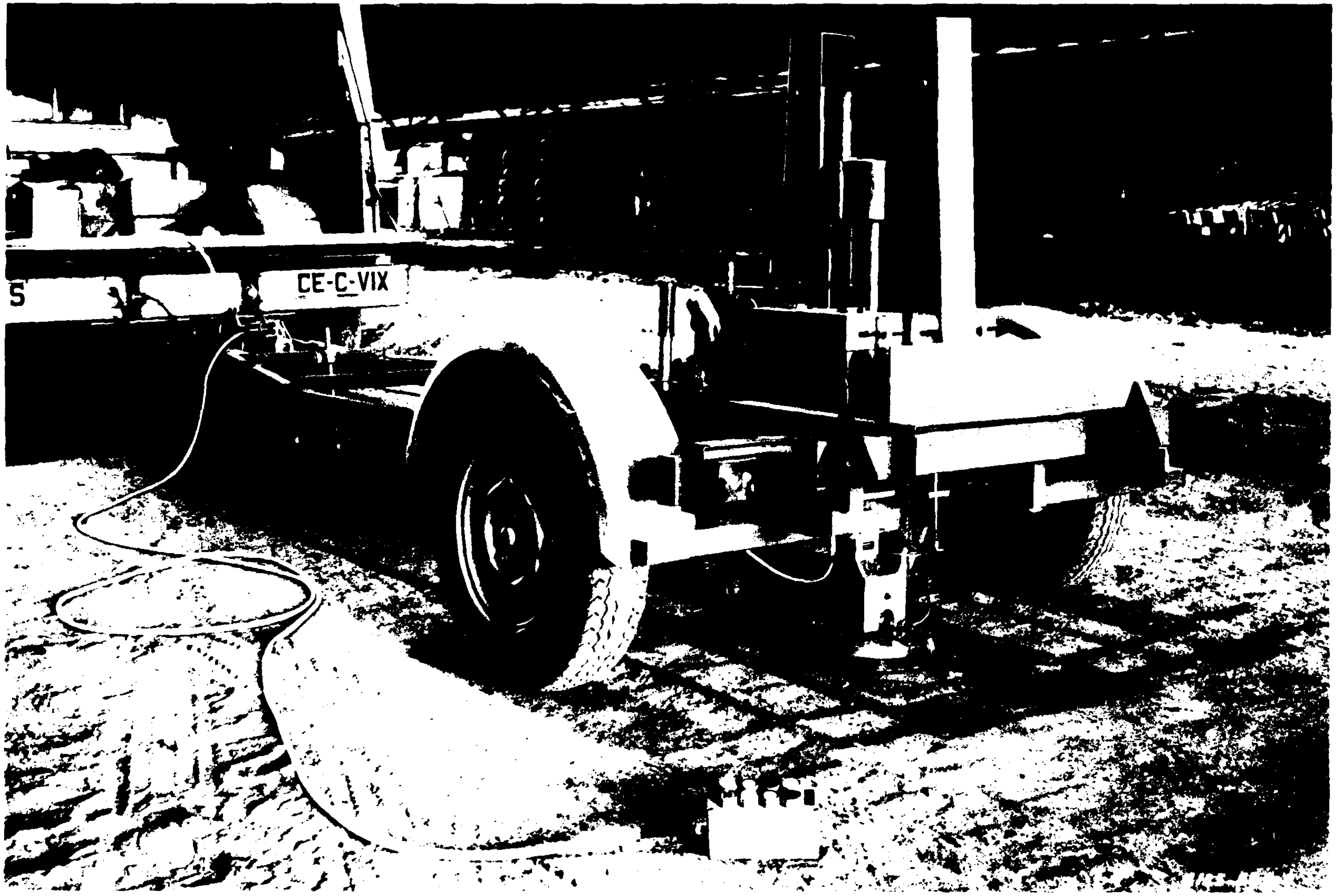


Photo A36. Falling Weight Deflectometer

Photo A37. MX test vehicle (modified prime mover, test wheels loaded to 62,500 lb)

Photo A38. MX test vehicle (shown from behind)

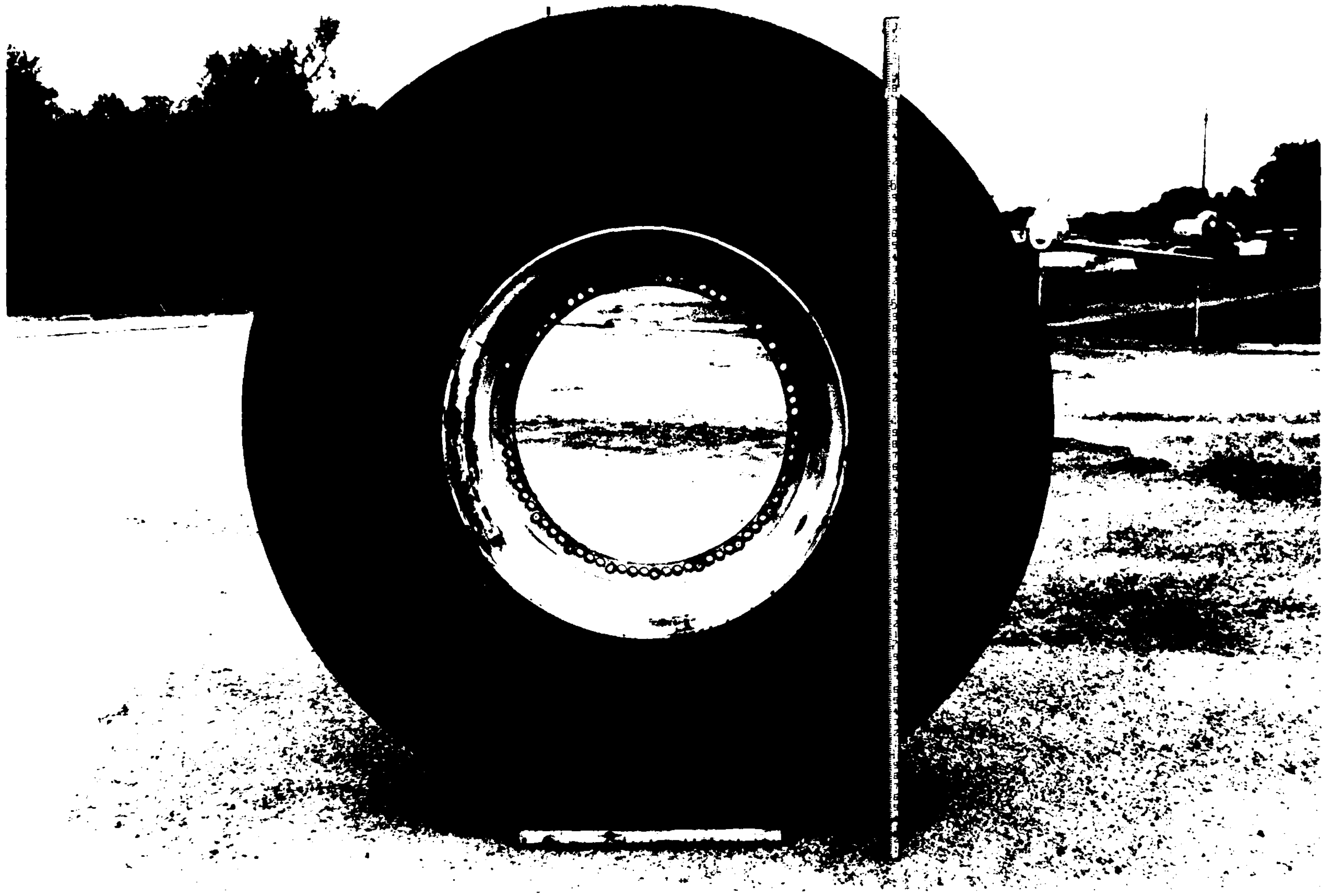


Photo A39. Side view of tires used on the MX load cart

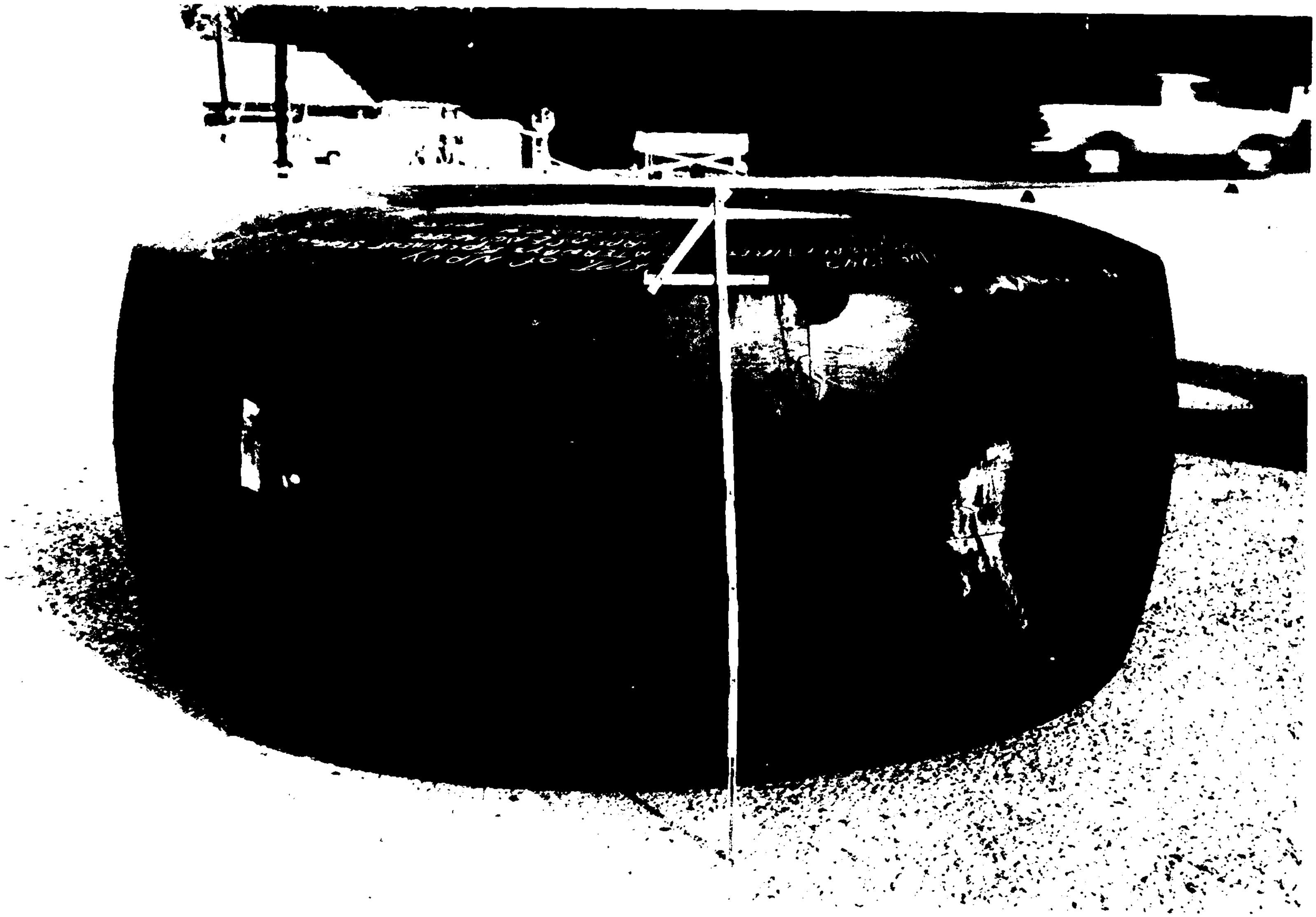


Photo A40. Smooth tires used on the MX load cart

Photo A41. Lane 1, Item 1, before traffic (0 passes)

Photo A42. Lane 1, Item 1, after 326 passes

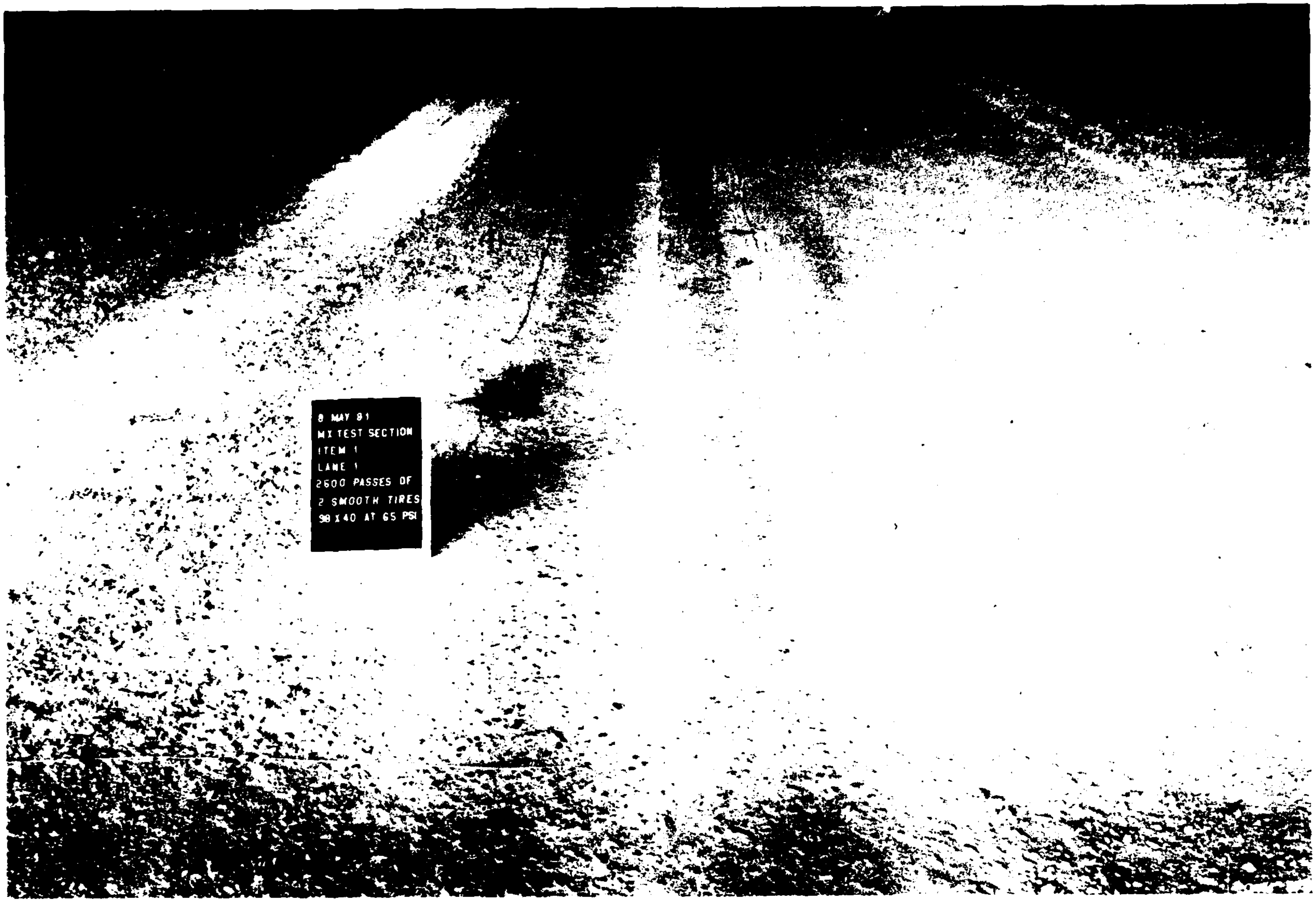


Photo A43. Lane 1, Item 1, after 2,600 passes

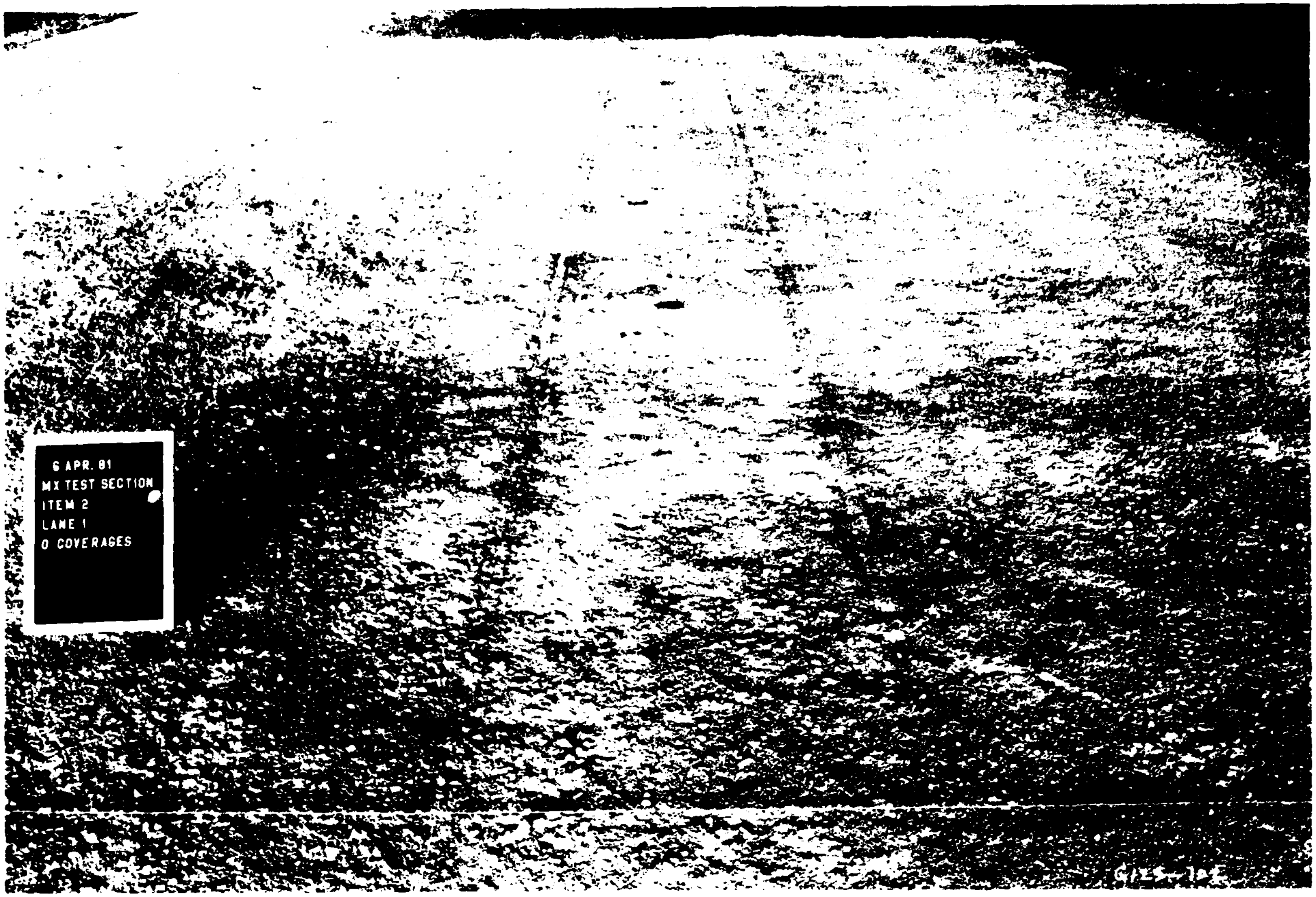


Photo A44. Lane 1, Item 2, before traffic (0 passes)

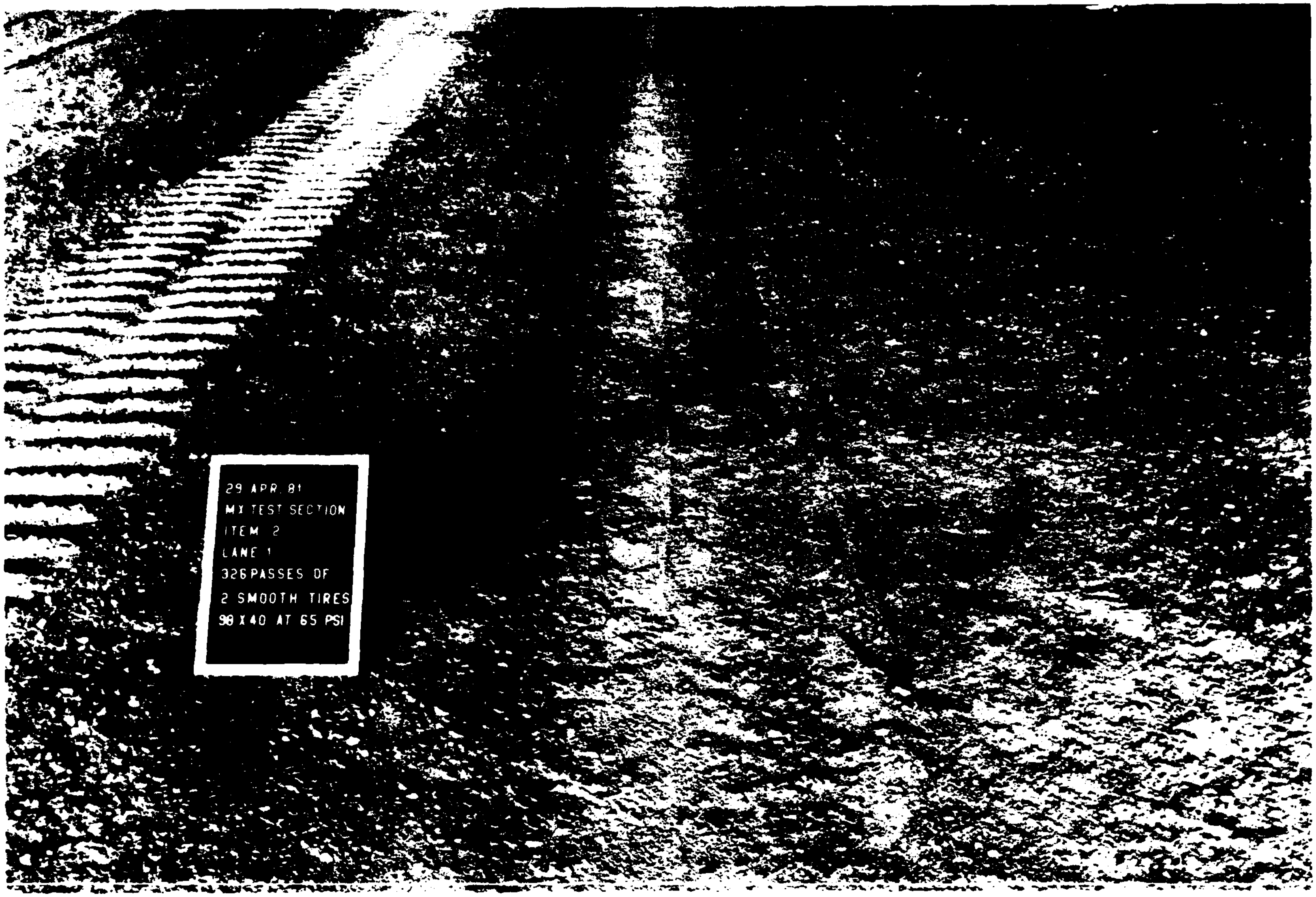


Photo A45. Lane 1, Item 2, after 326 passes

Photo A46. Lane 1, Item 2, after 2,600 passes

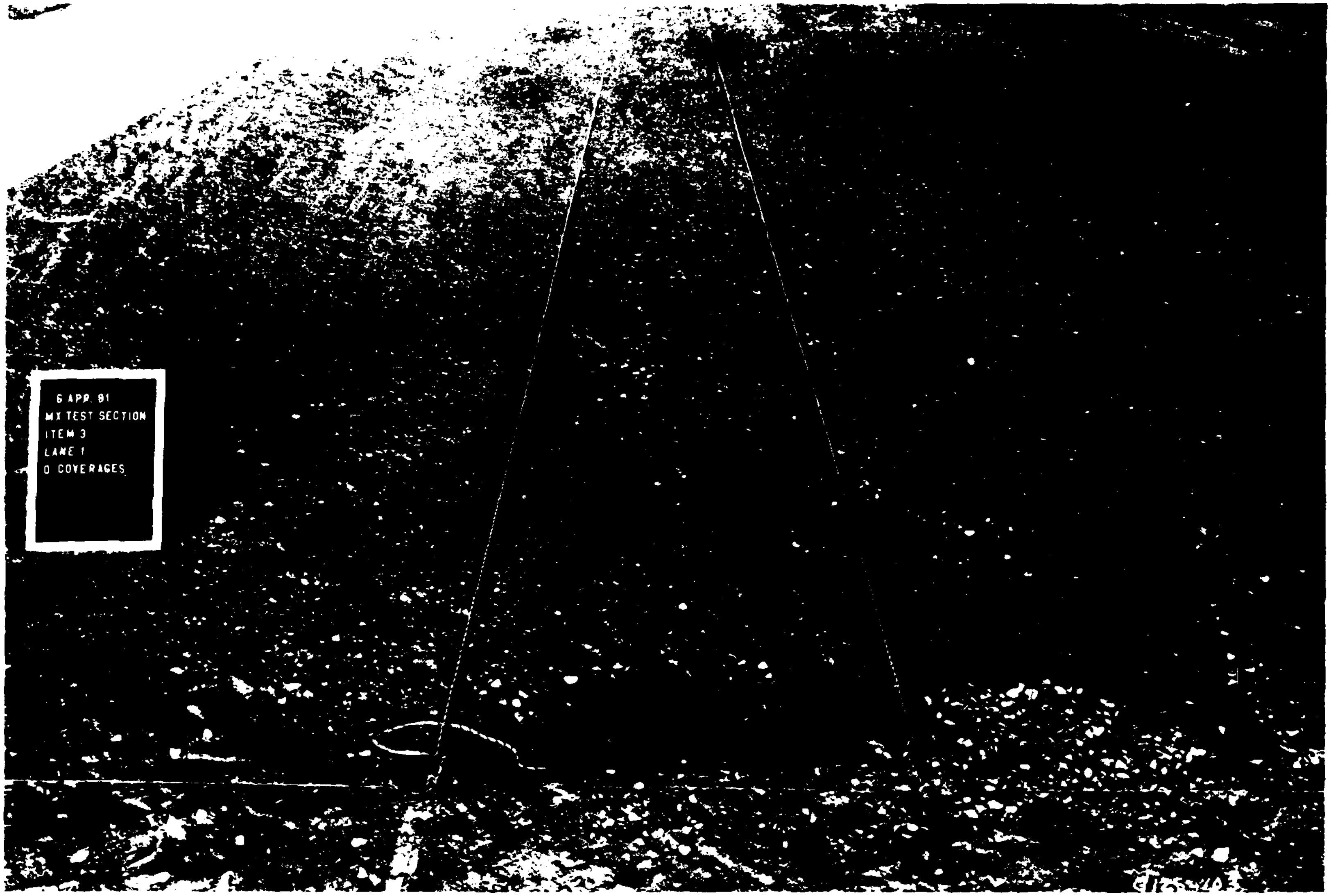


Photo A47. Lane 1, Item 3, before traffic (0 passes)

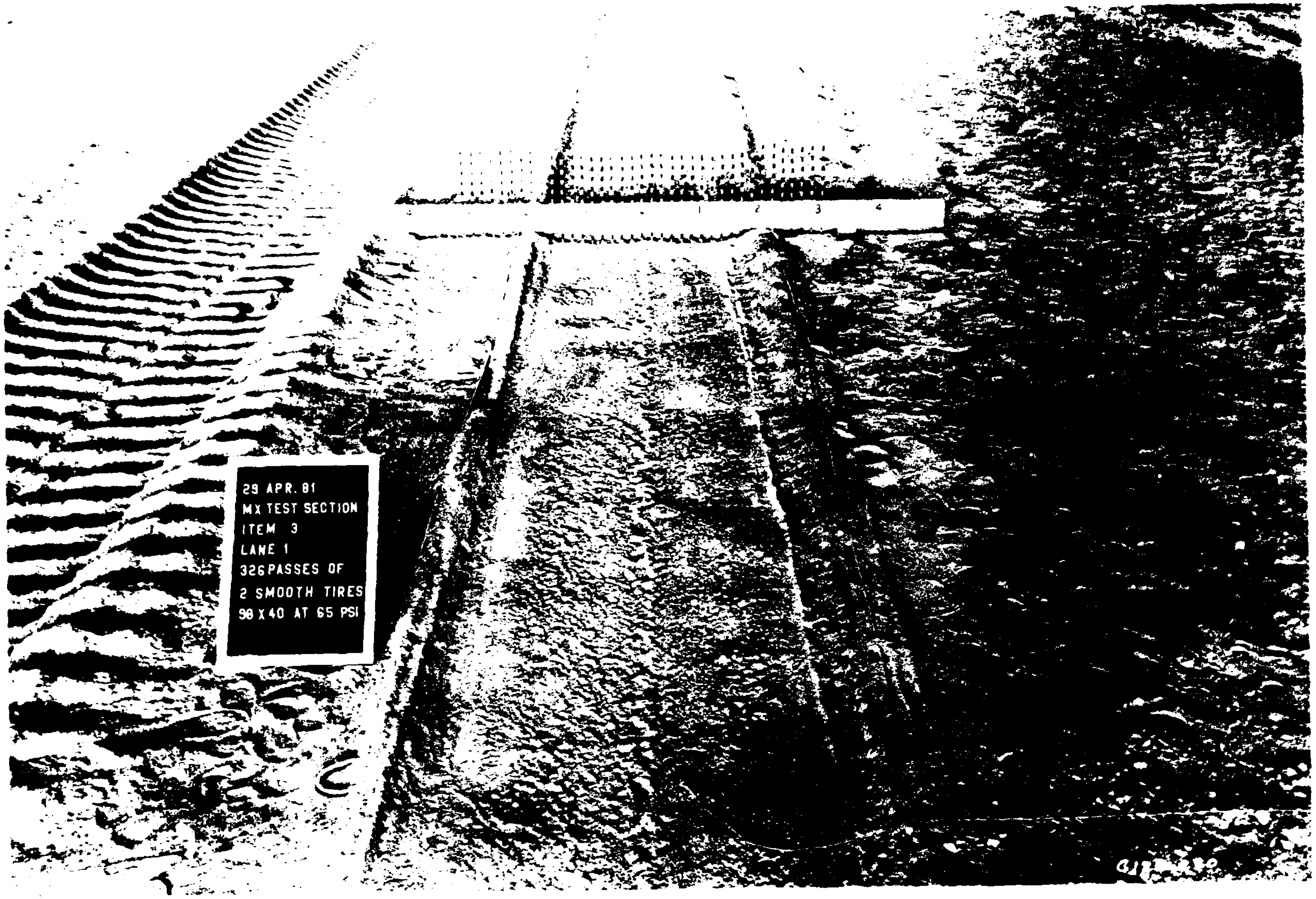


Photo A48. Lane 1, Item 3, after 326 passes

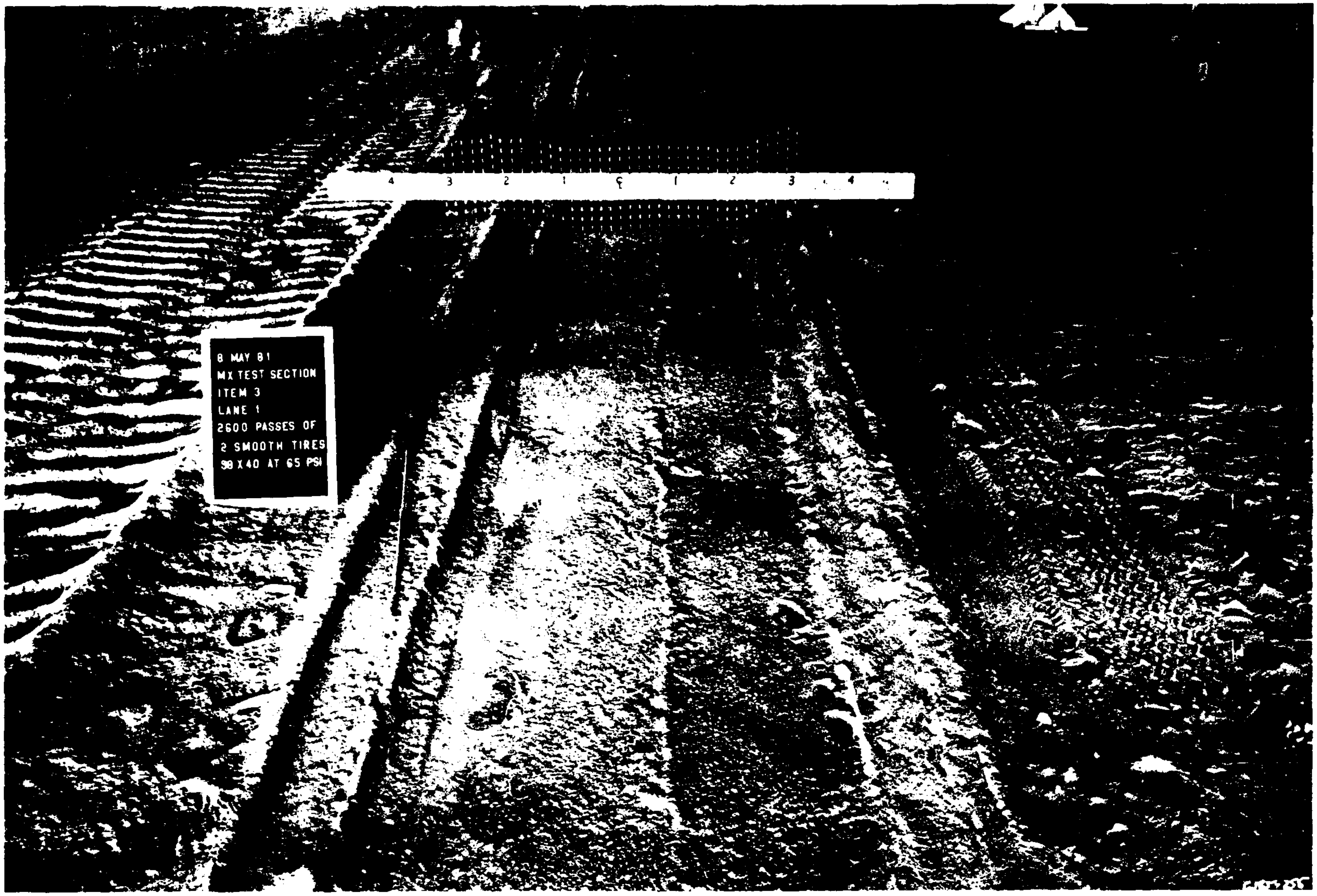


Photo A49. Lane 1, Item 3, after 2,600 passes

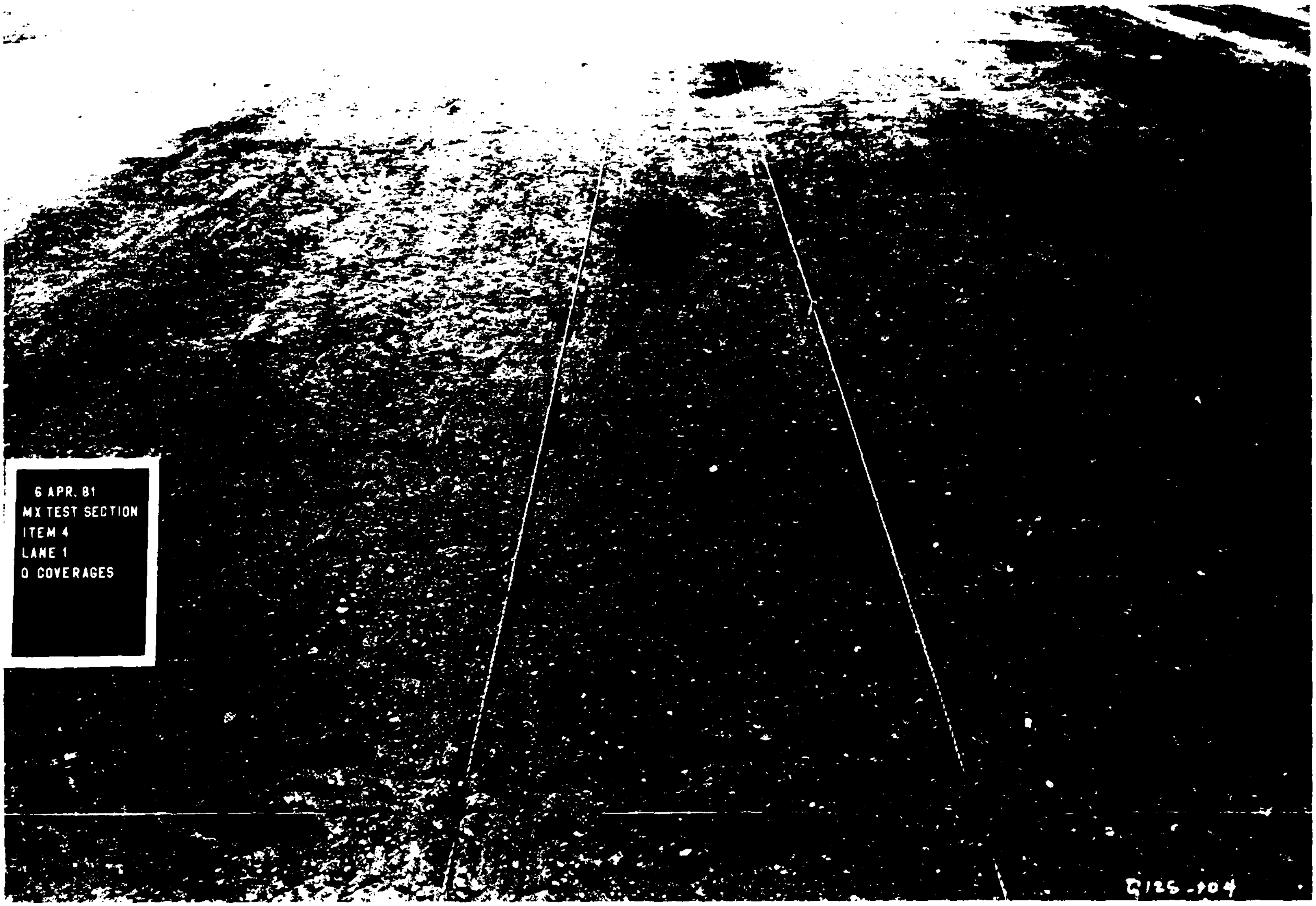


Photo A50. Lane 1, Item 4, before traffic (0 passes)

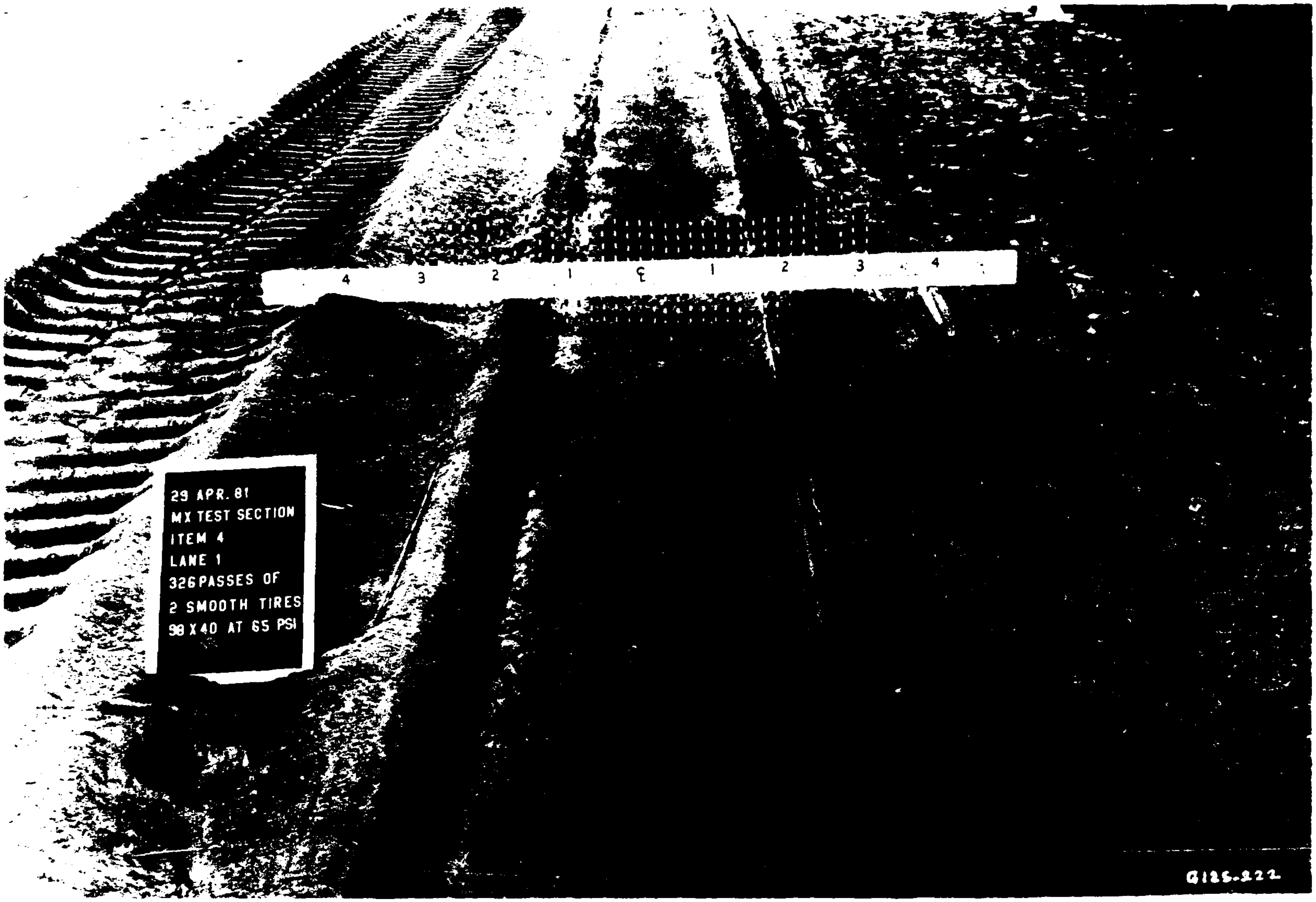


Photo A51. Lane 1, Item 4, after 326 passes

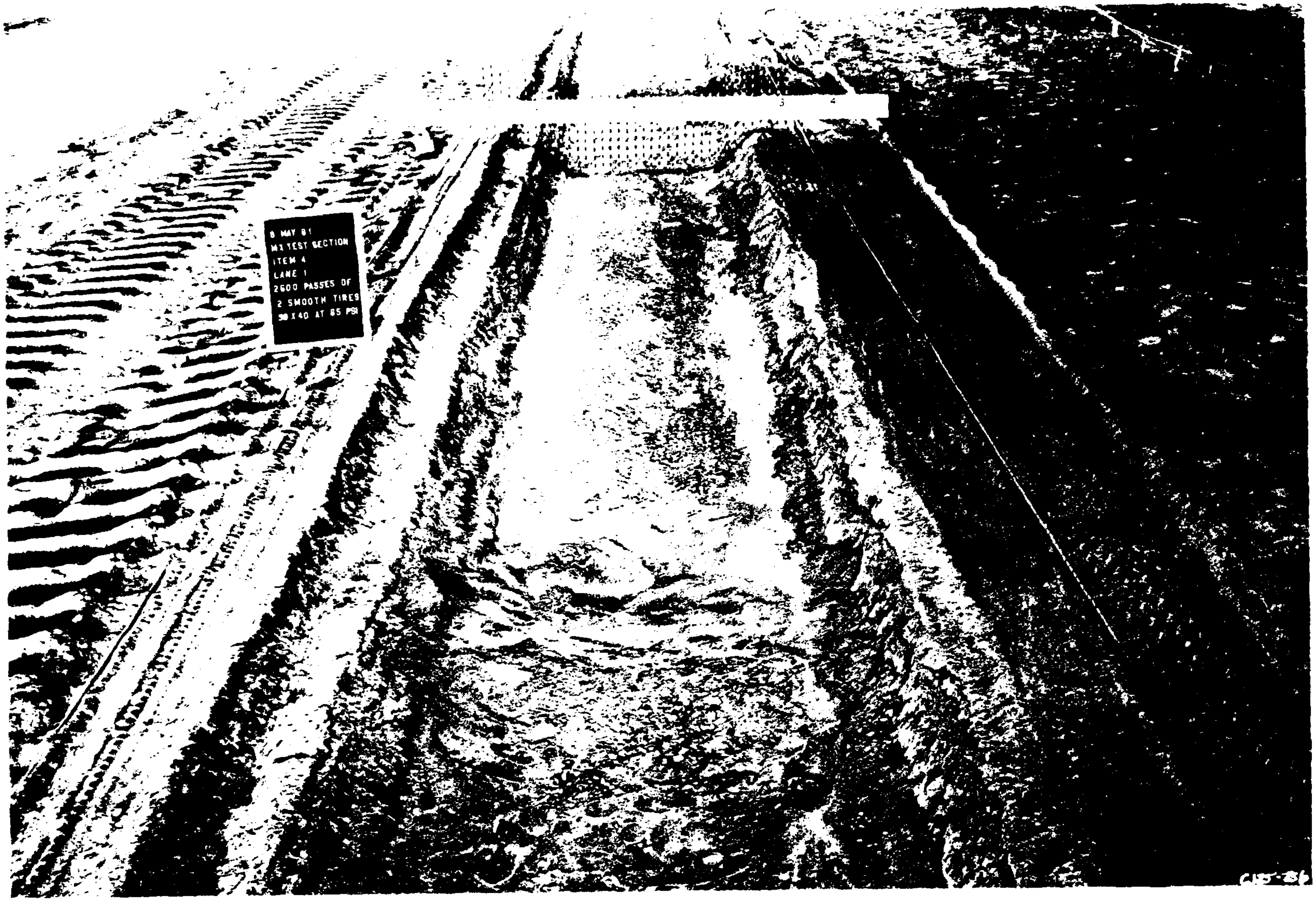


Photo A52. Lane 1, Item 4, after 2,600 passes

Photo A53. Lane 1, Item 5, before traffic (0 passes)

Photo A54. Lane 1, Item 5, after 326 passes

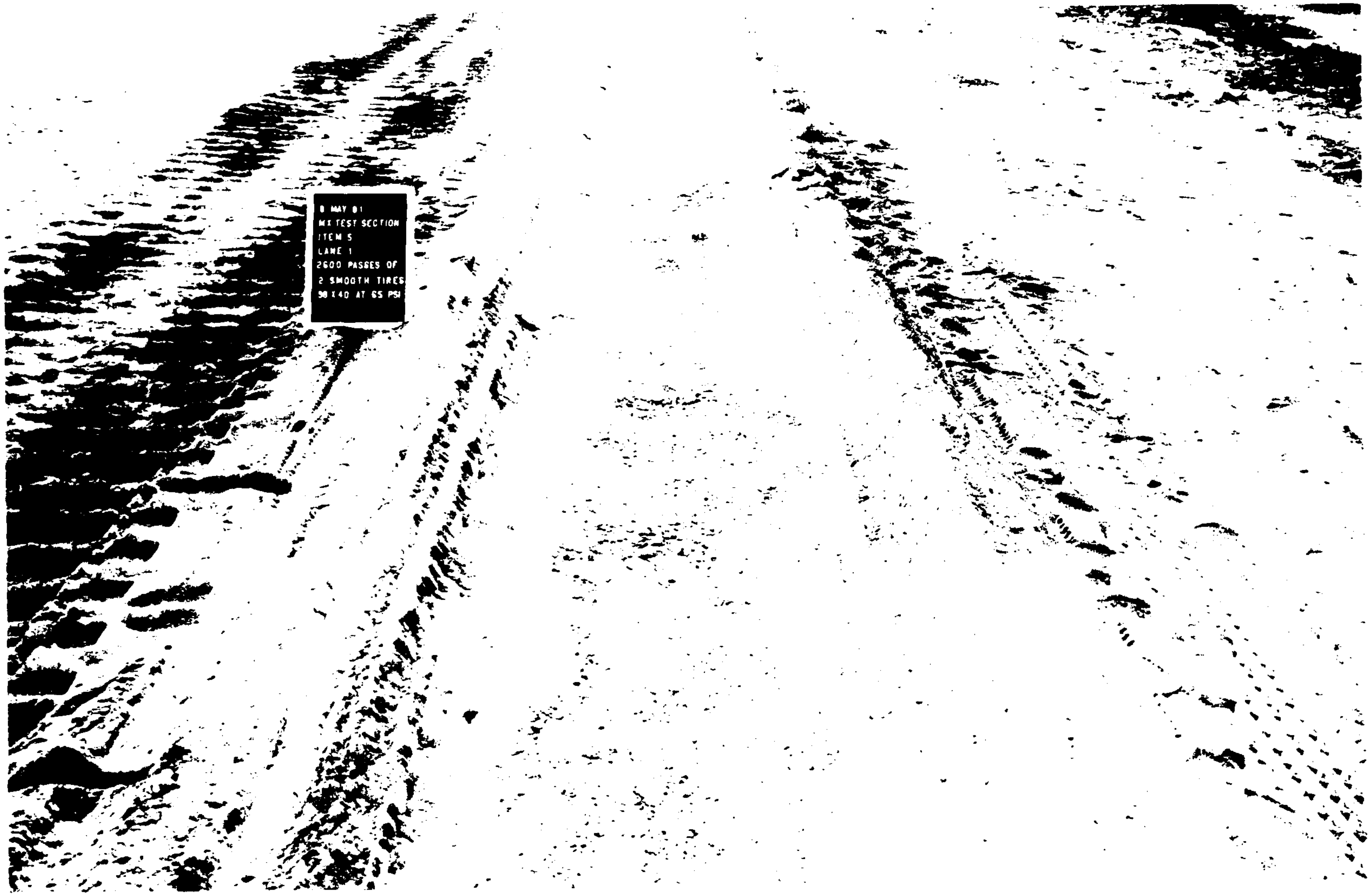


Photo A55. Lane 1, Item 5, after 2,600 passes

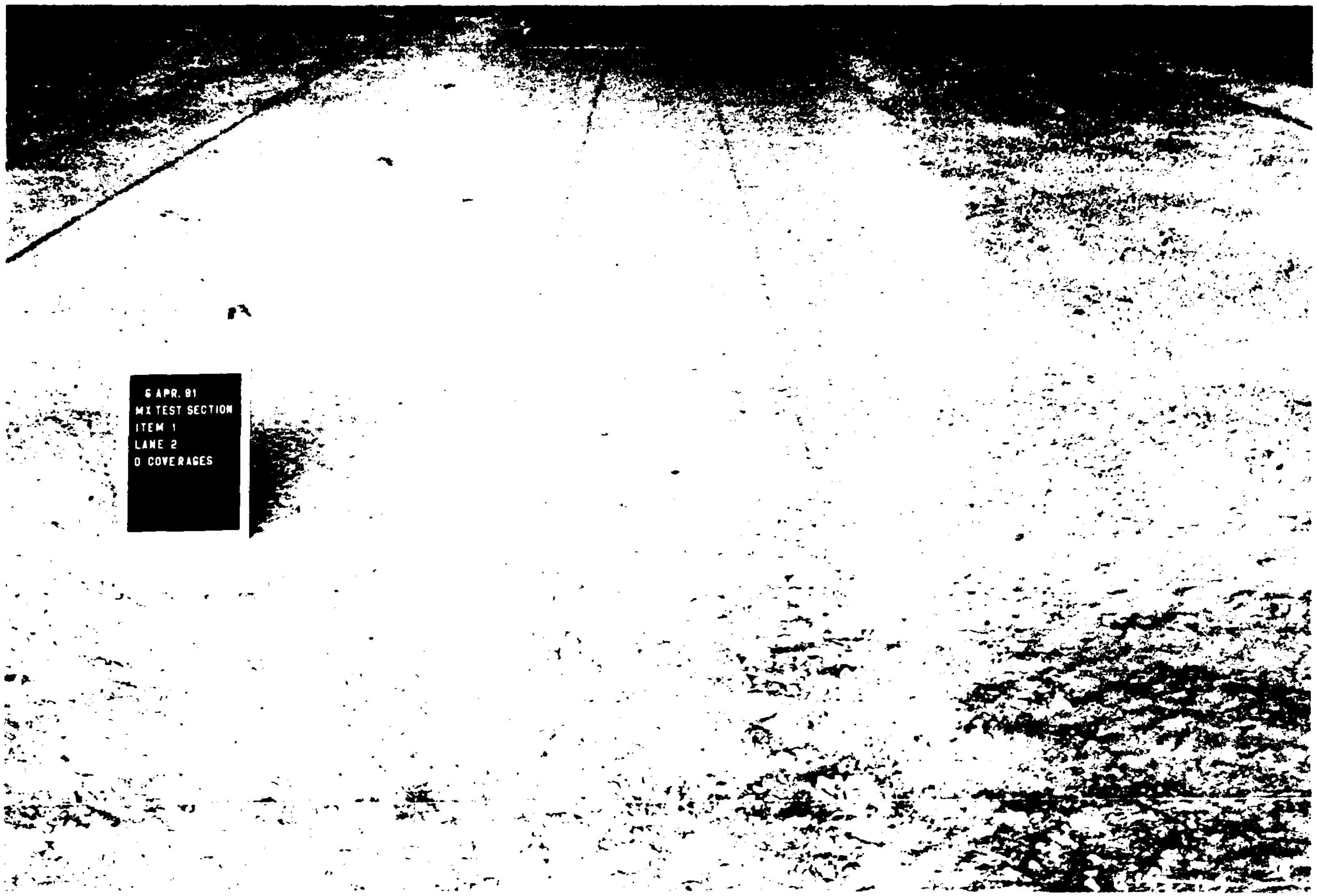


Photo A56. Lane 2, Item 1, before traffic (0 passes)

Photo A57. Lane 2, Item 1, after 326 passes

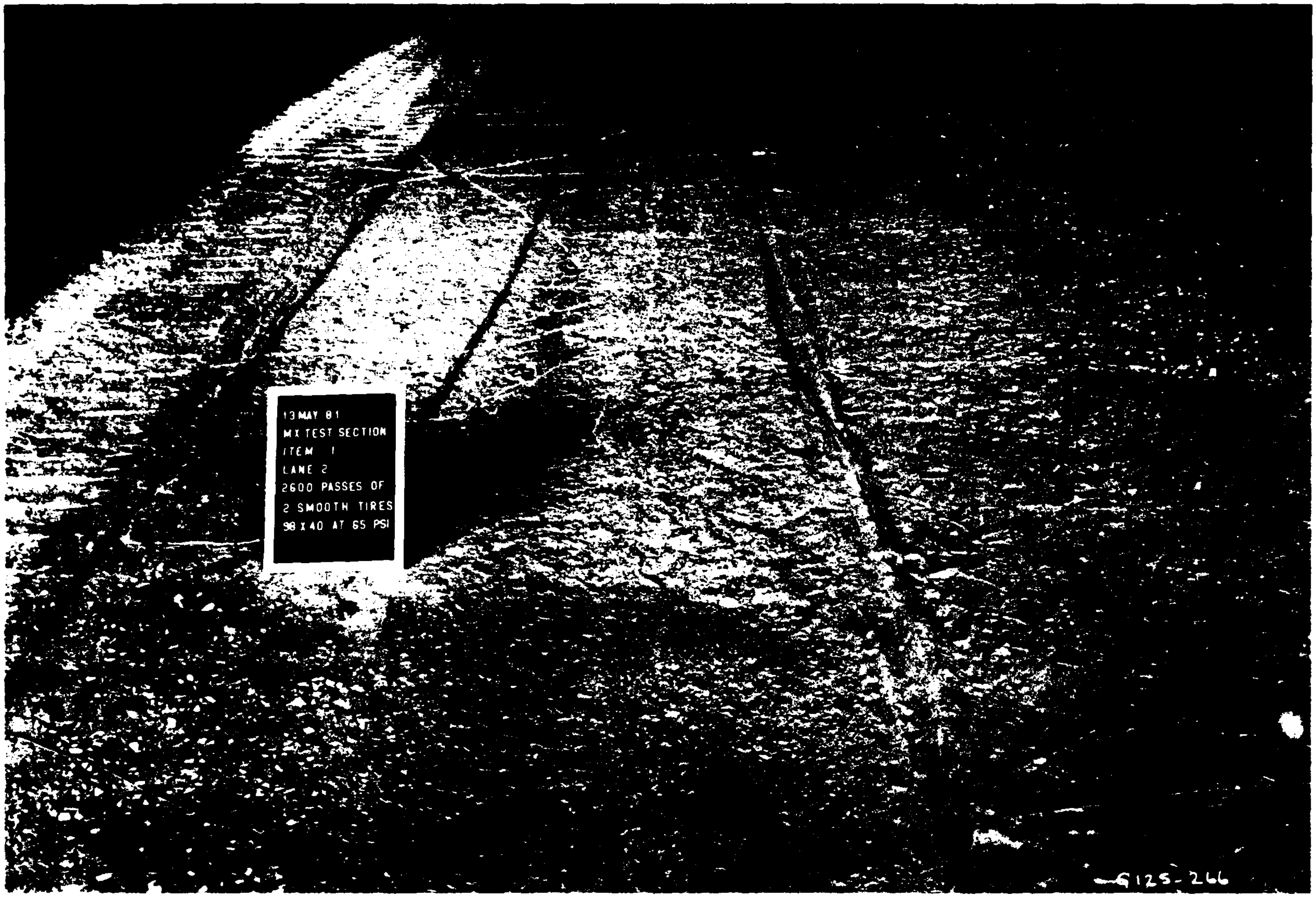


Photo A58. Lane 2, Item 1, after 2,600 passes

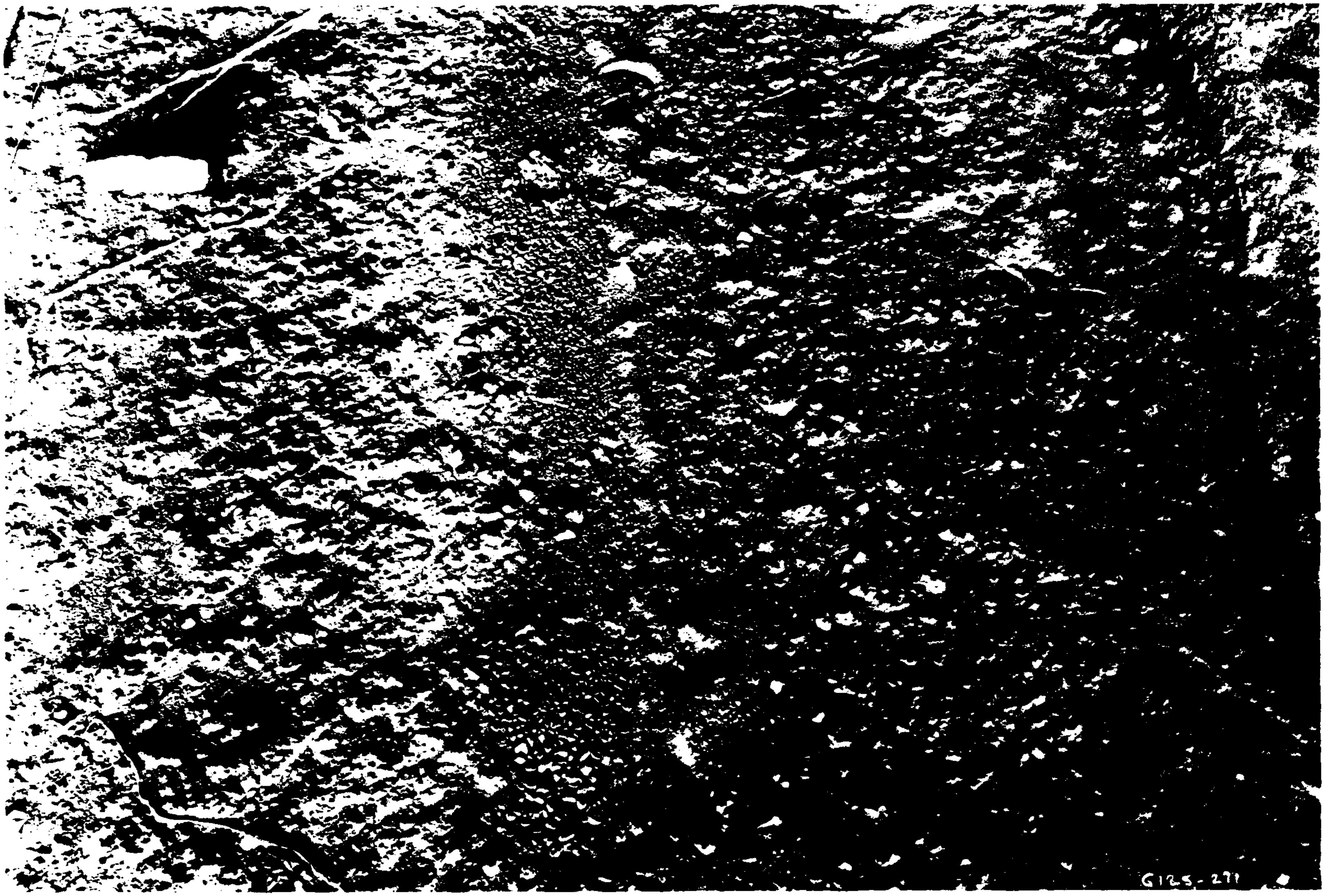


Photo A59. Close-up of surface, lane 2, Item 1, after 2,600 passes

Photo A60. Lane 2, Item 1, after 2,600 passes (loose material removed from the surface)

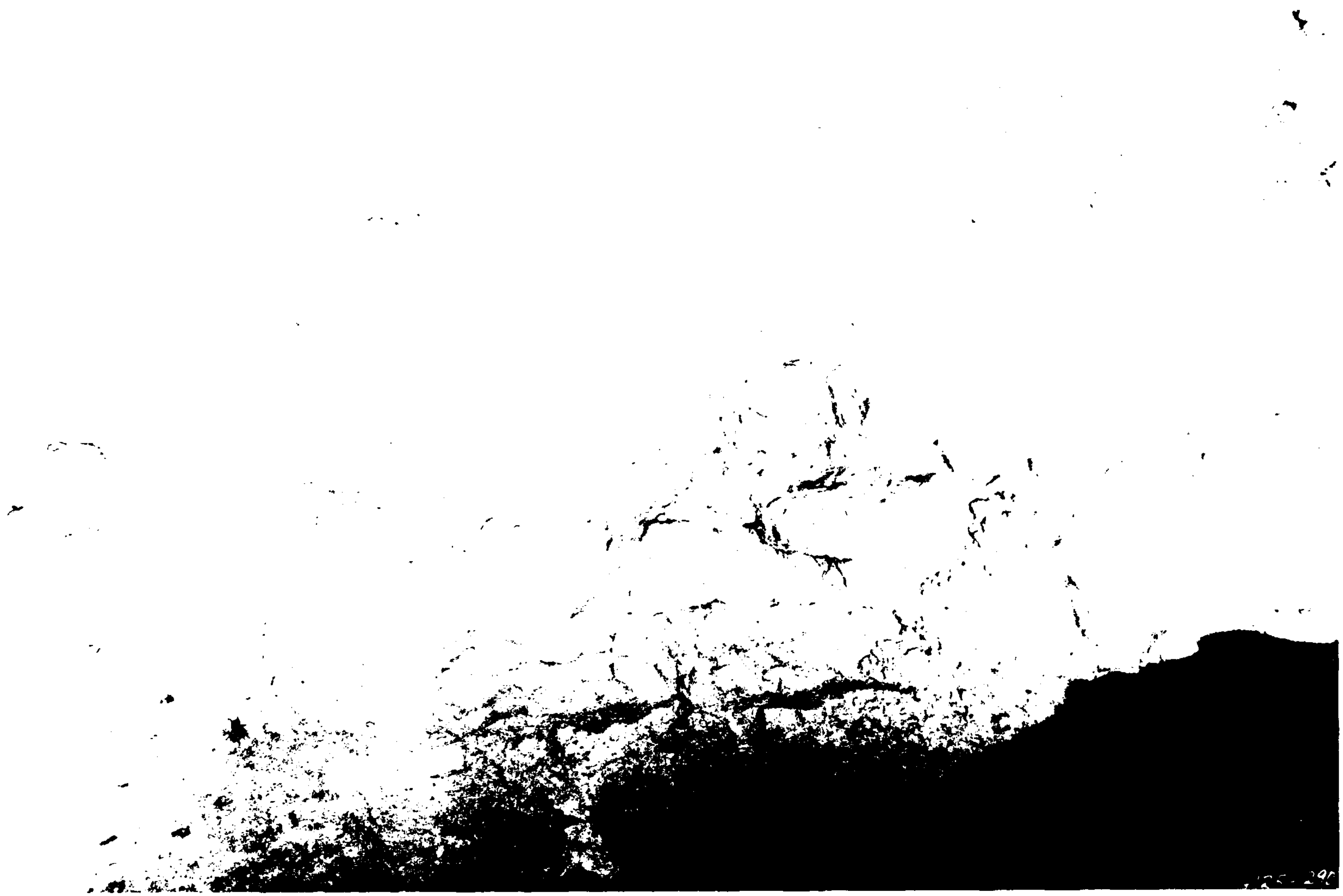


Photo A61. Vertical cut through 29 in. of cement stabilized Blend I (lane 2, Item 1)

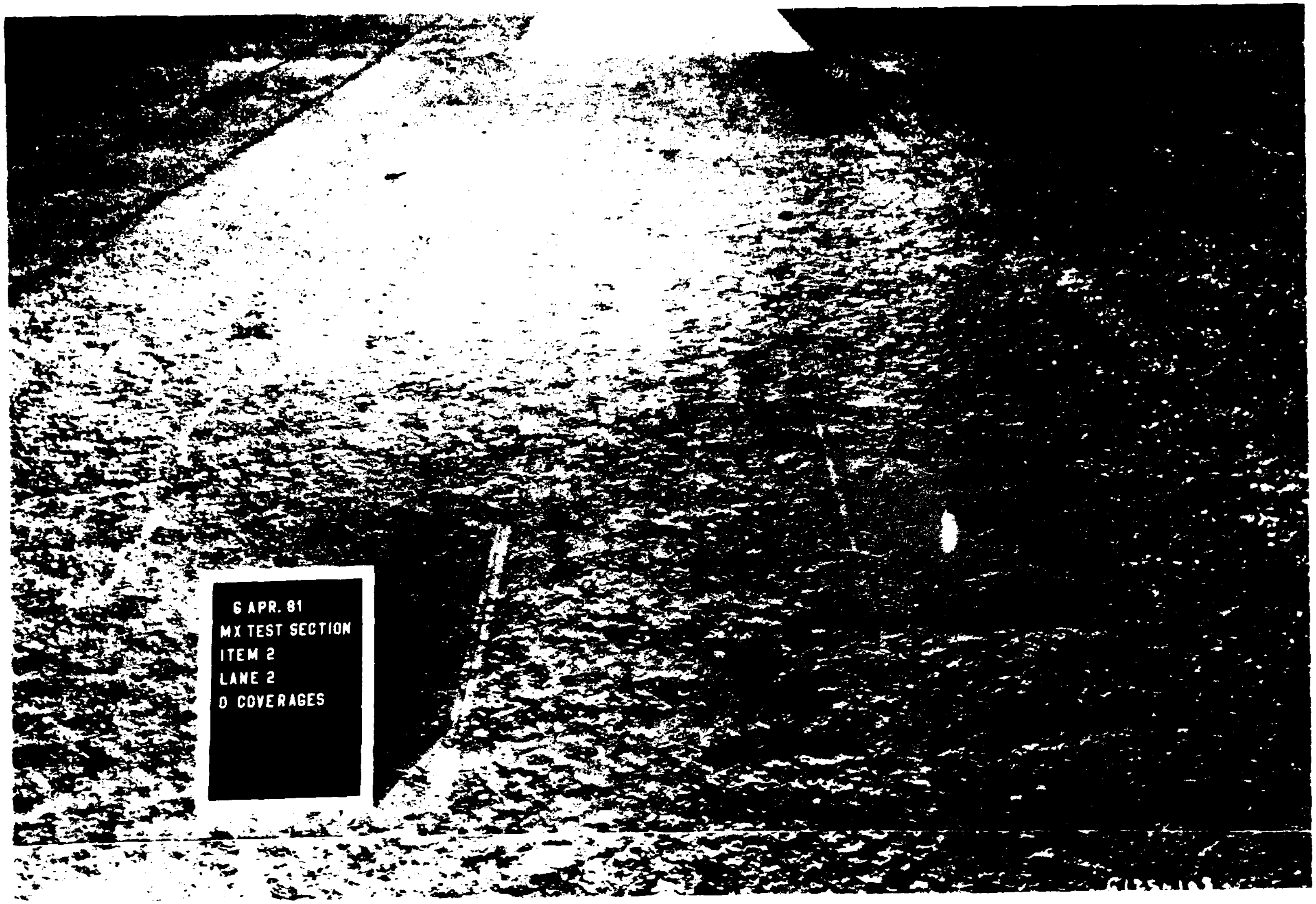


Photo A62. Lane 2, Item 2, before traffic (0 passes)

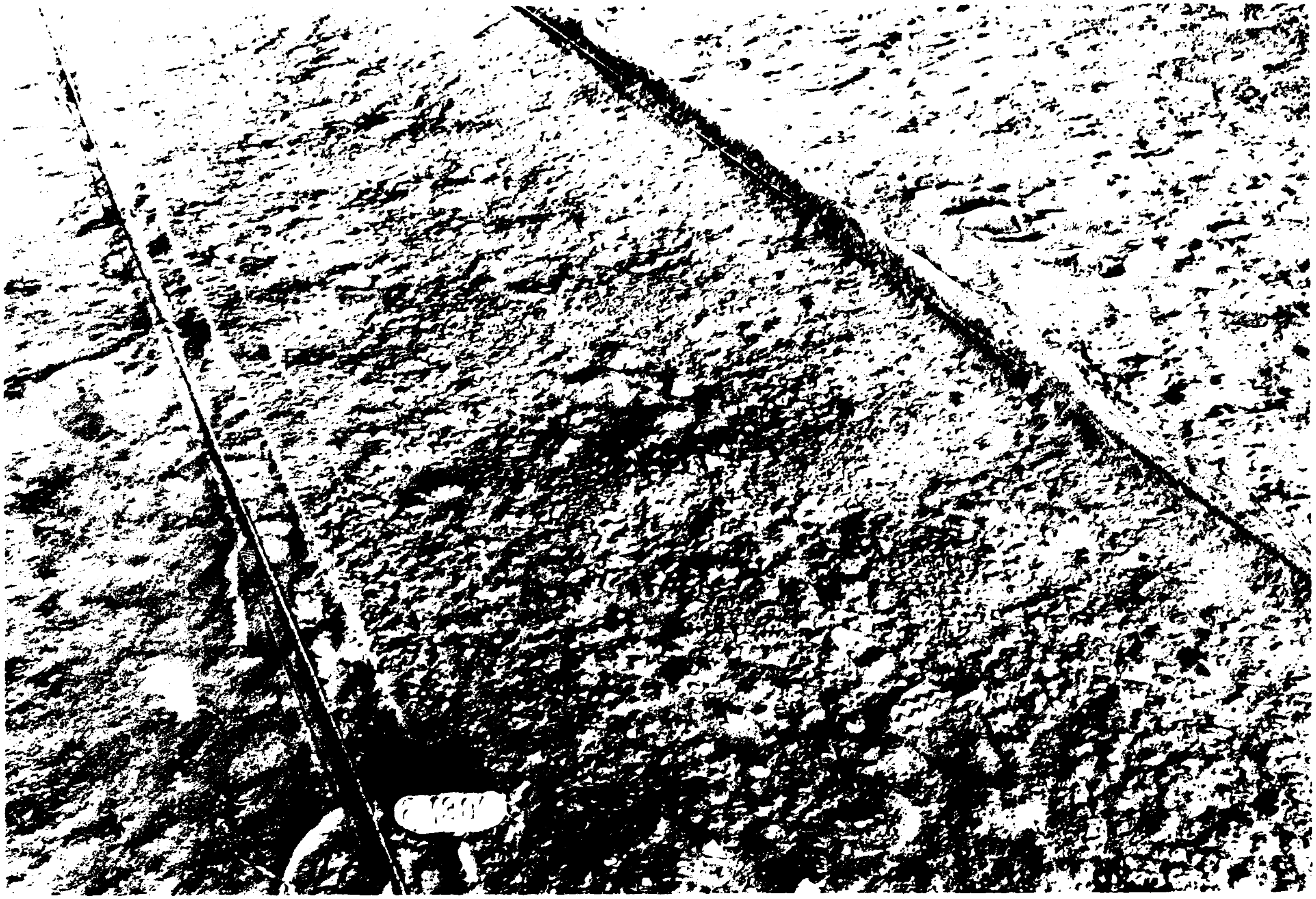


Photo A63. Close-up of surface, lane 2, Item 2, after 1,300 passes

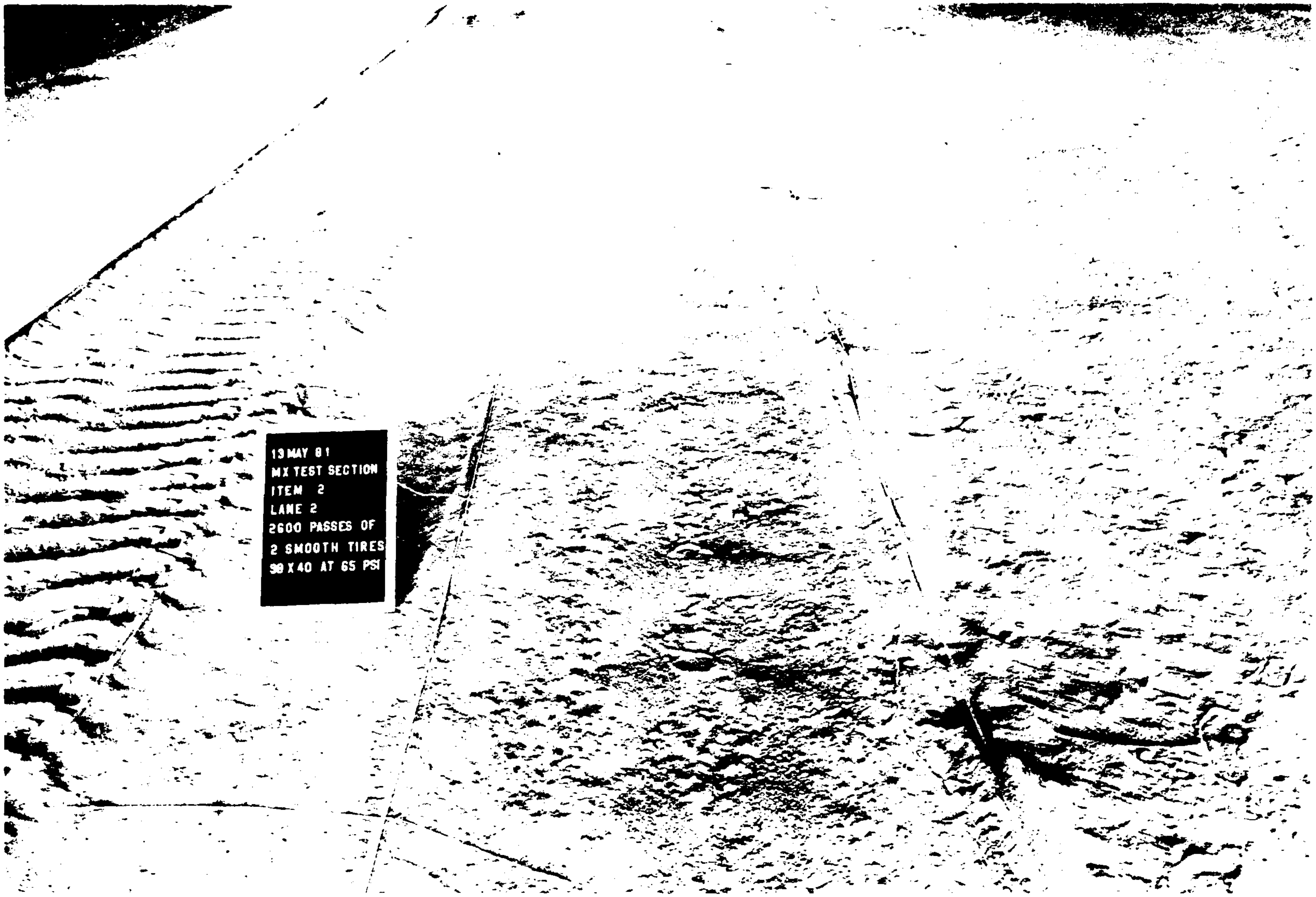


Photo A64. Lane 2, Item 2, after 2,600 passes

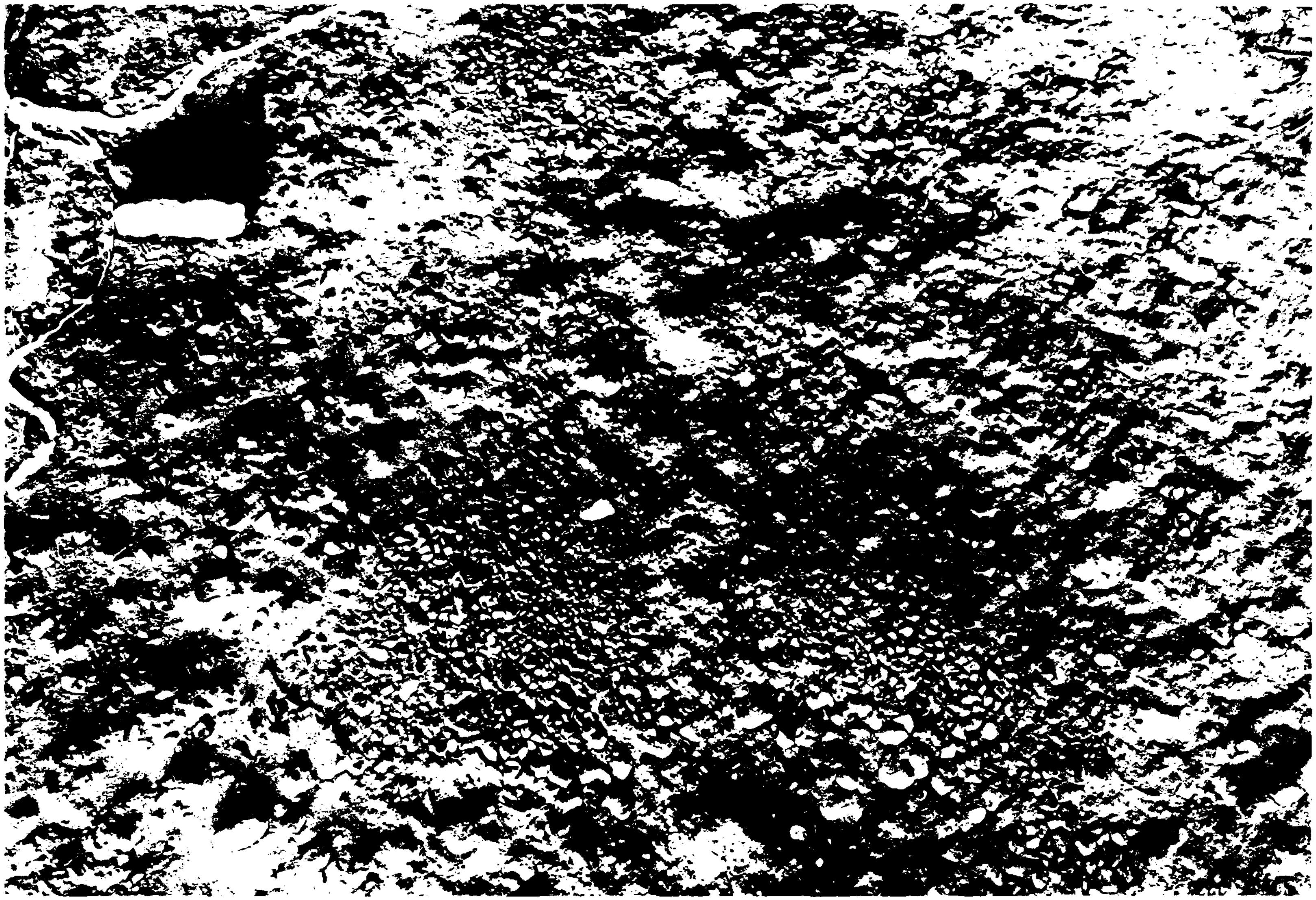


Photo A65. Close-up of surface, lane 2, Item 2, after 2,600 passes

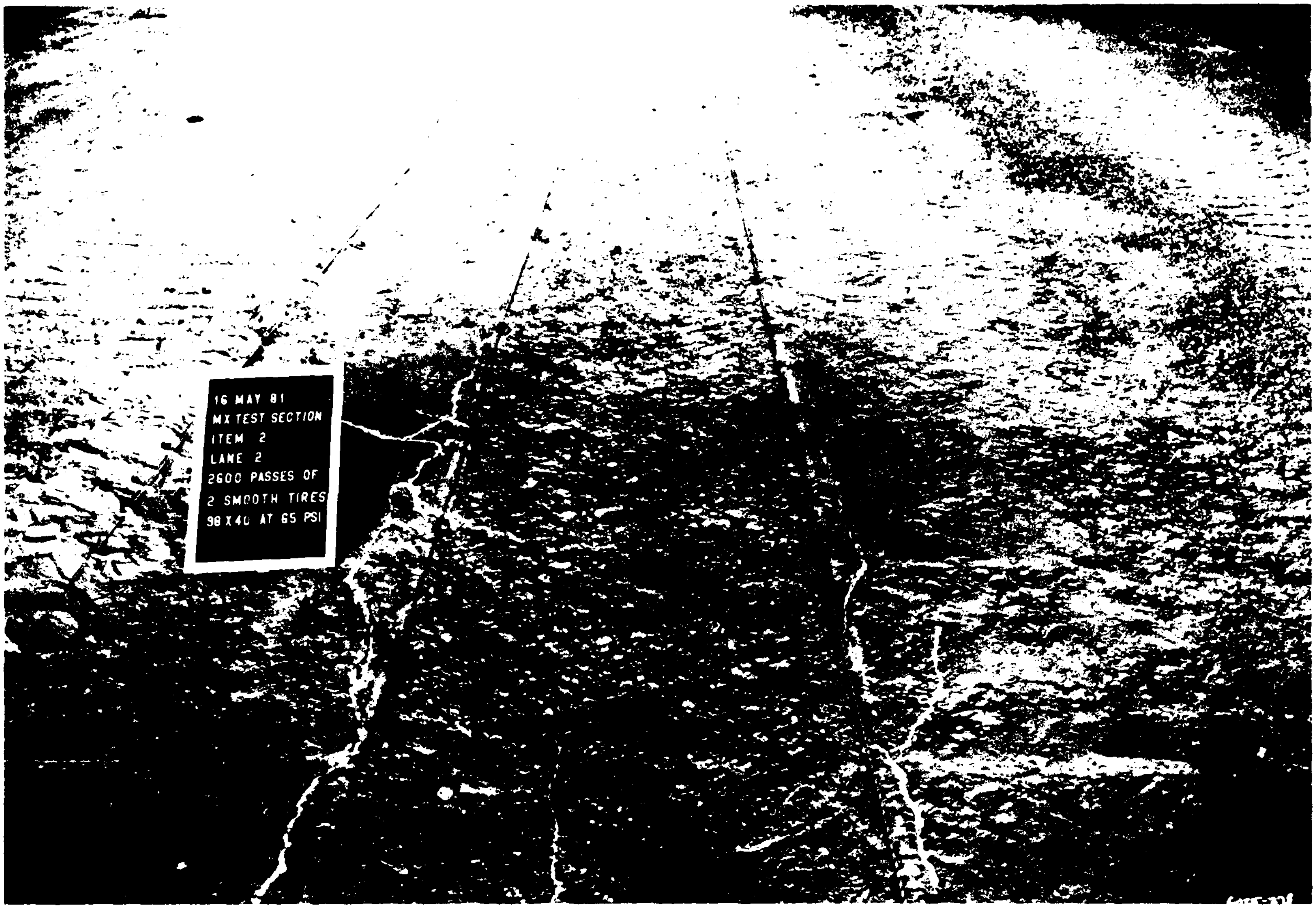


Photo A66. Lane 2, Item 2, after 2,600 passes (loose material removed from the surface)

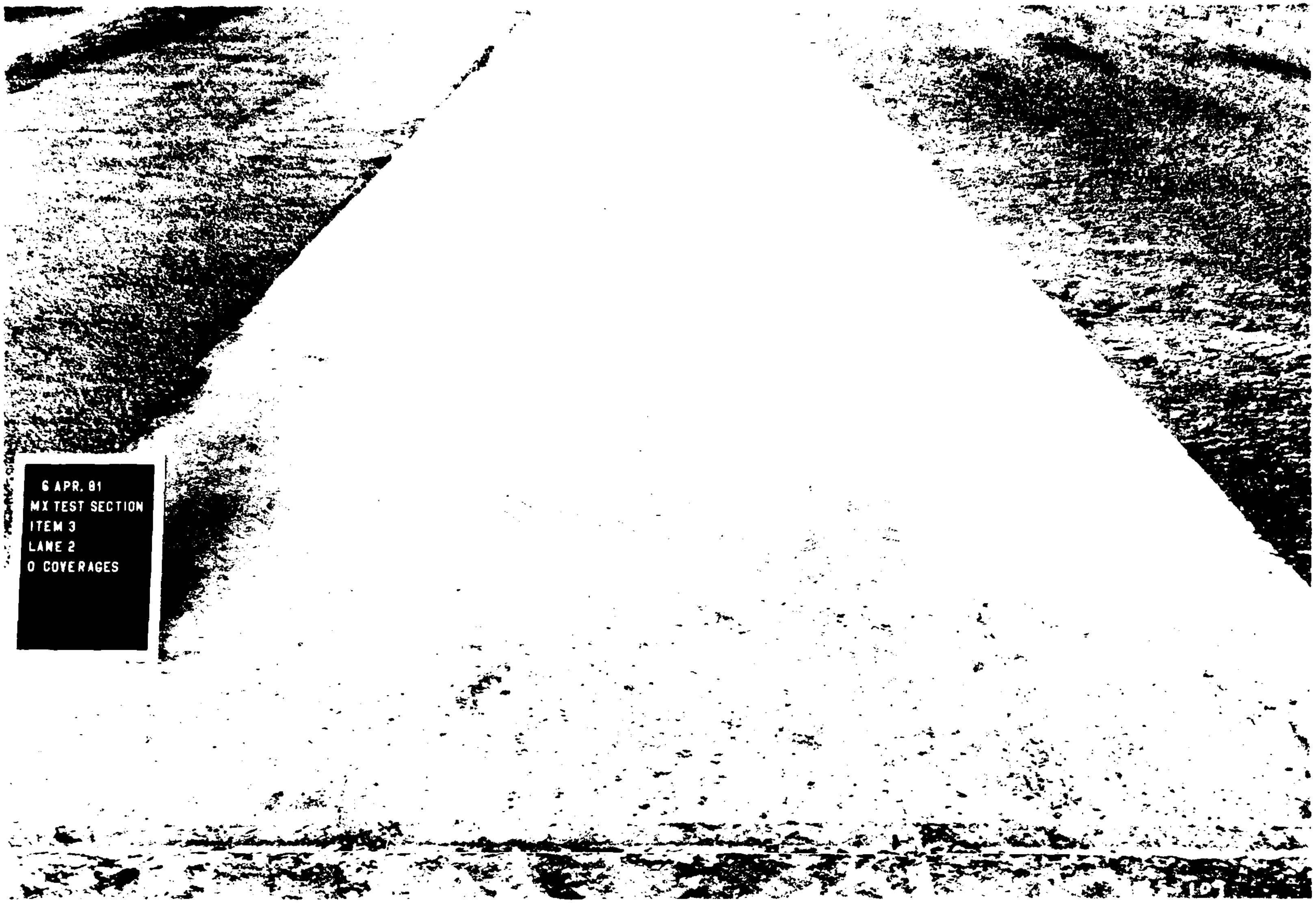


Photo A67. Lane 2, Item 3, before traffic (0 passes)

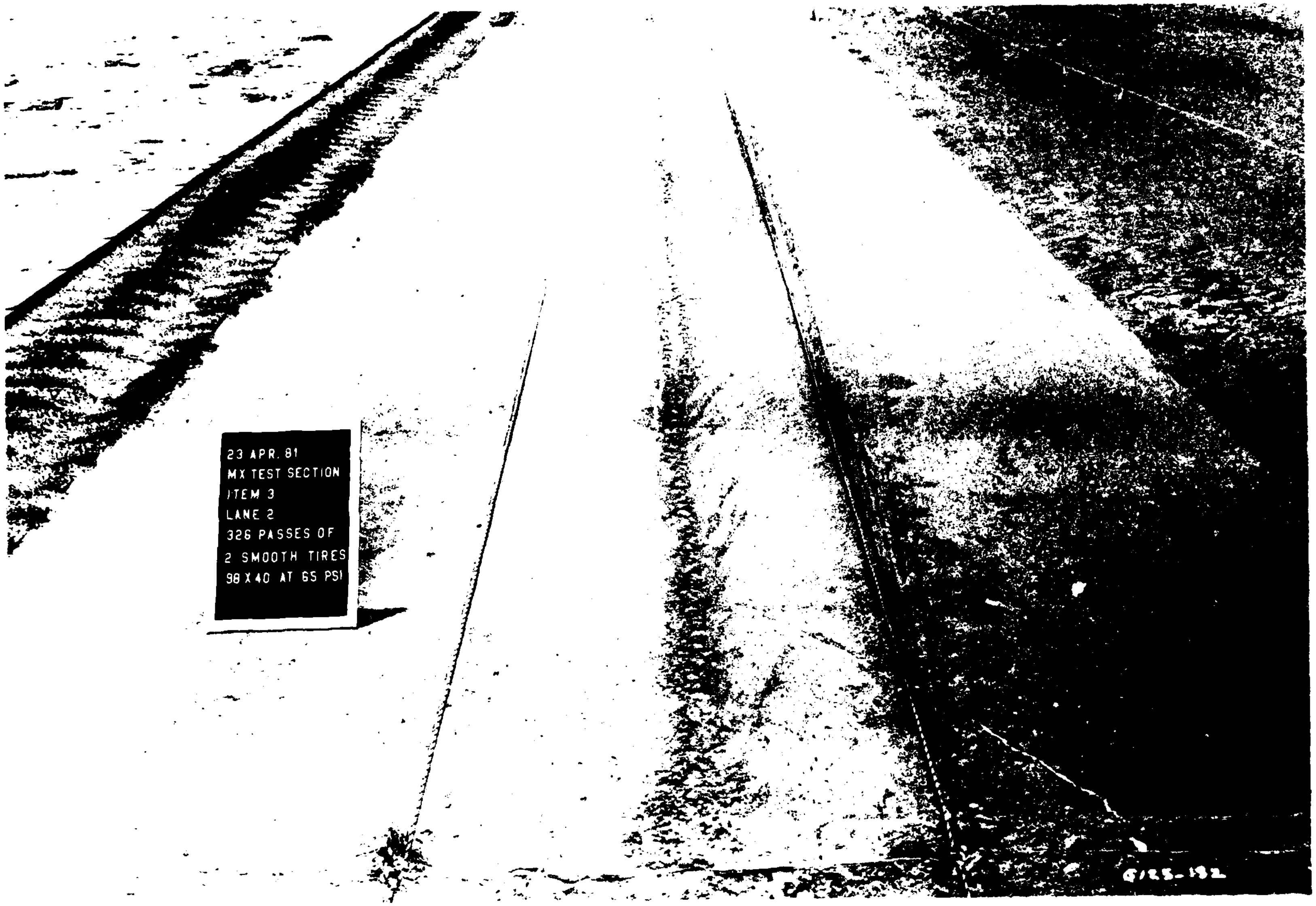


Photo A68. Lane 2, Item 3, after 326 passes

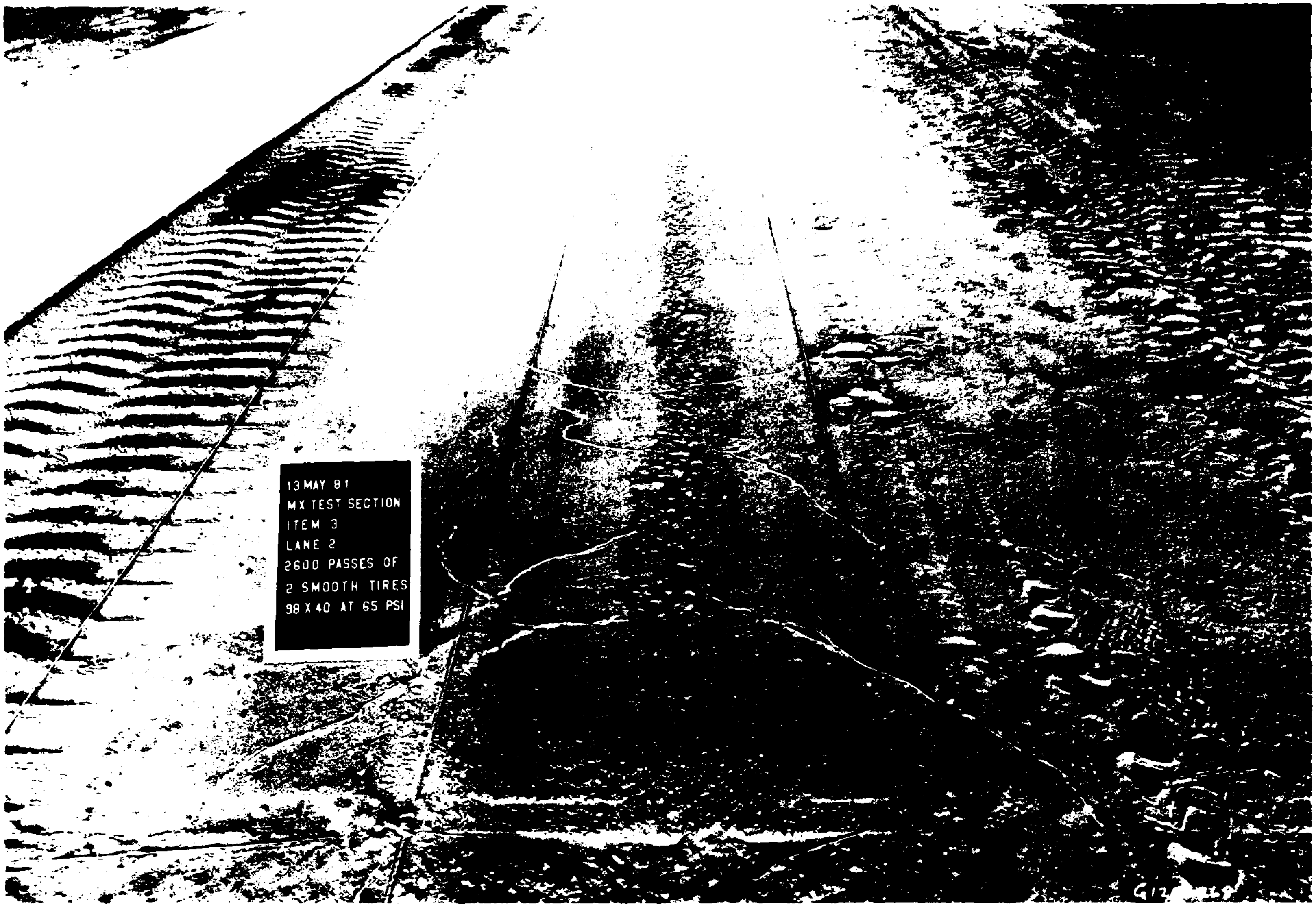


Photo A69. Lane 2, Item 3, after 2,600 passes

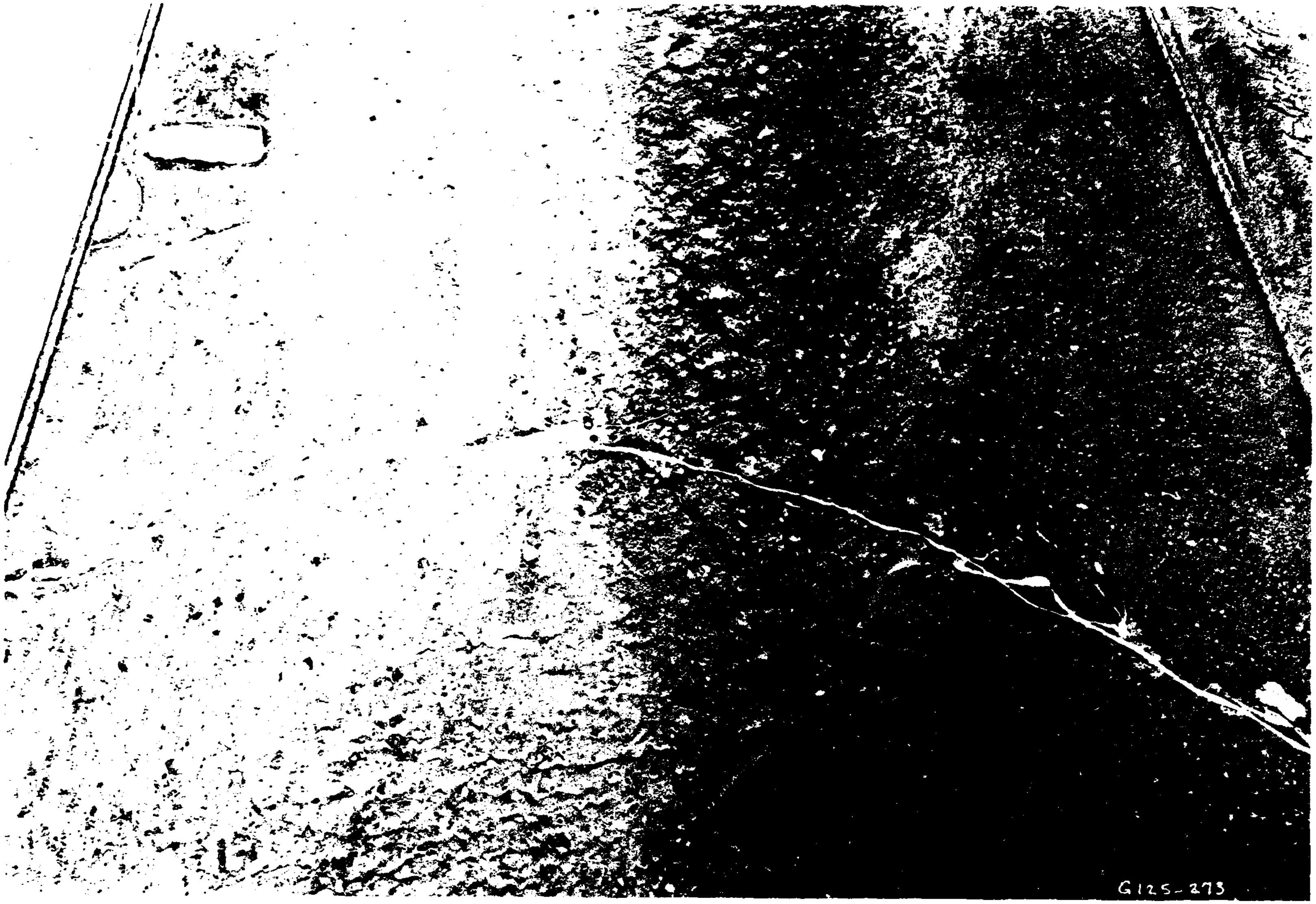


Photo A70. Close-up of surface, lane 2, Item 3, after 2,600 passes

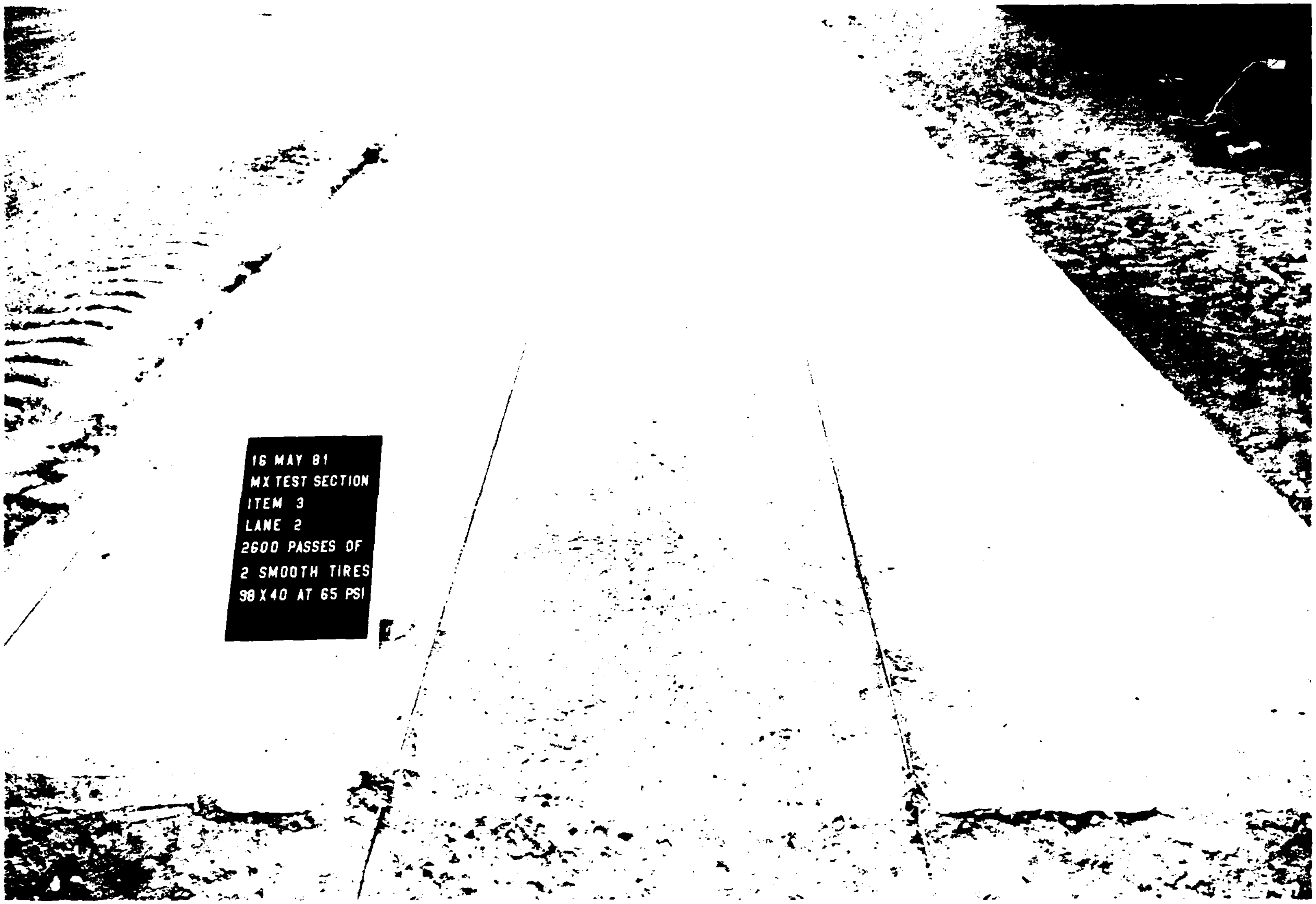


Photo A71. Lane 2, Item 3, after 2,600 passes (loose material removed from the surface)

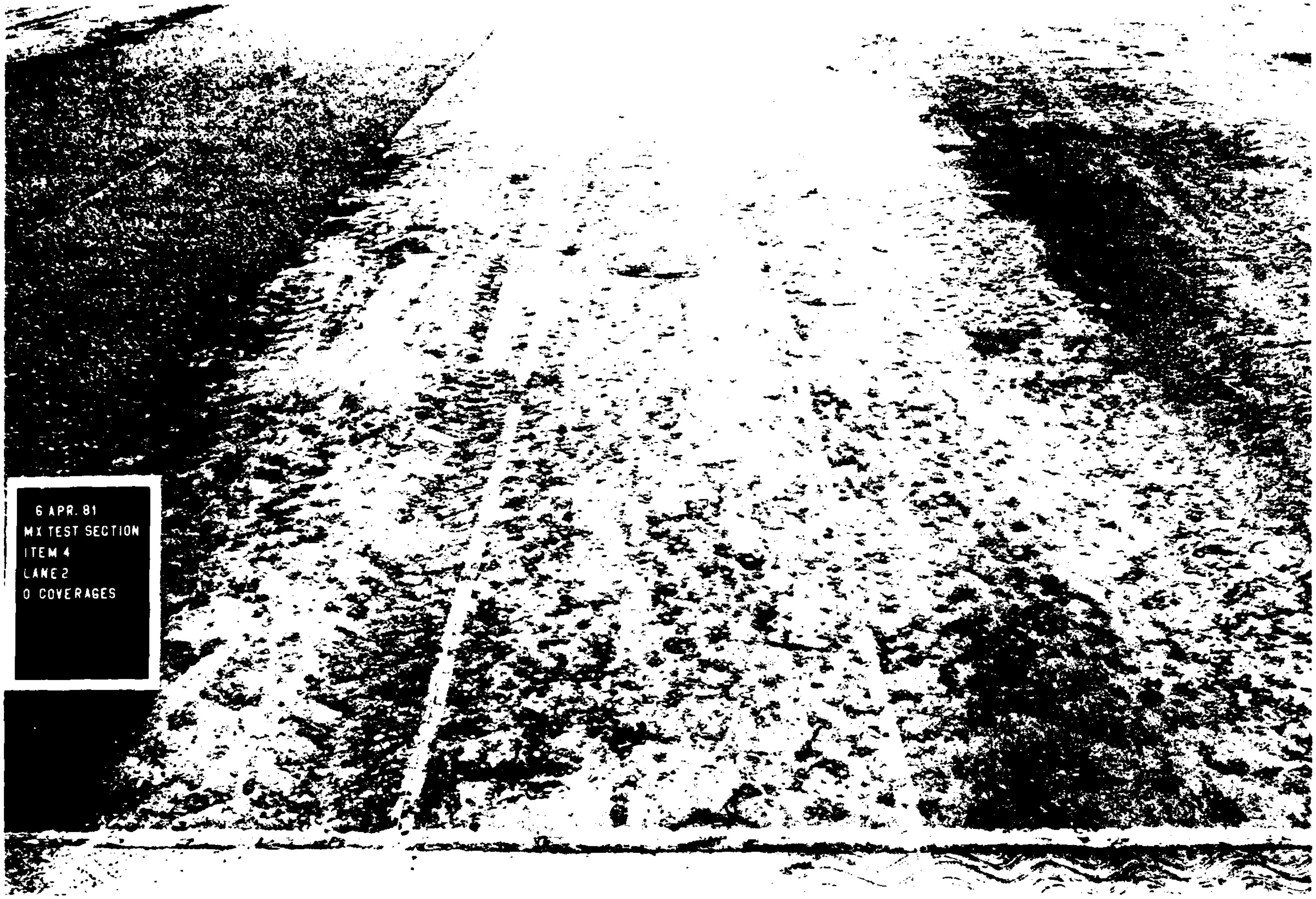


Photo A72. Lane 2, Item 4, before traffic (0 passes)

Photo A73. Lane 2, Item 4, after 326 passes

Photo A74. Lane 2, Item 4, after 2,600 passes

Photo A75. Close-up of surface, lane 2, Item 4, after 2,600 passes

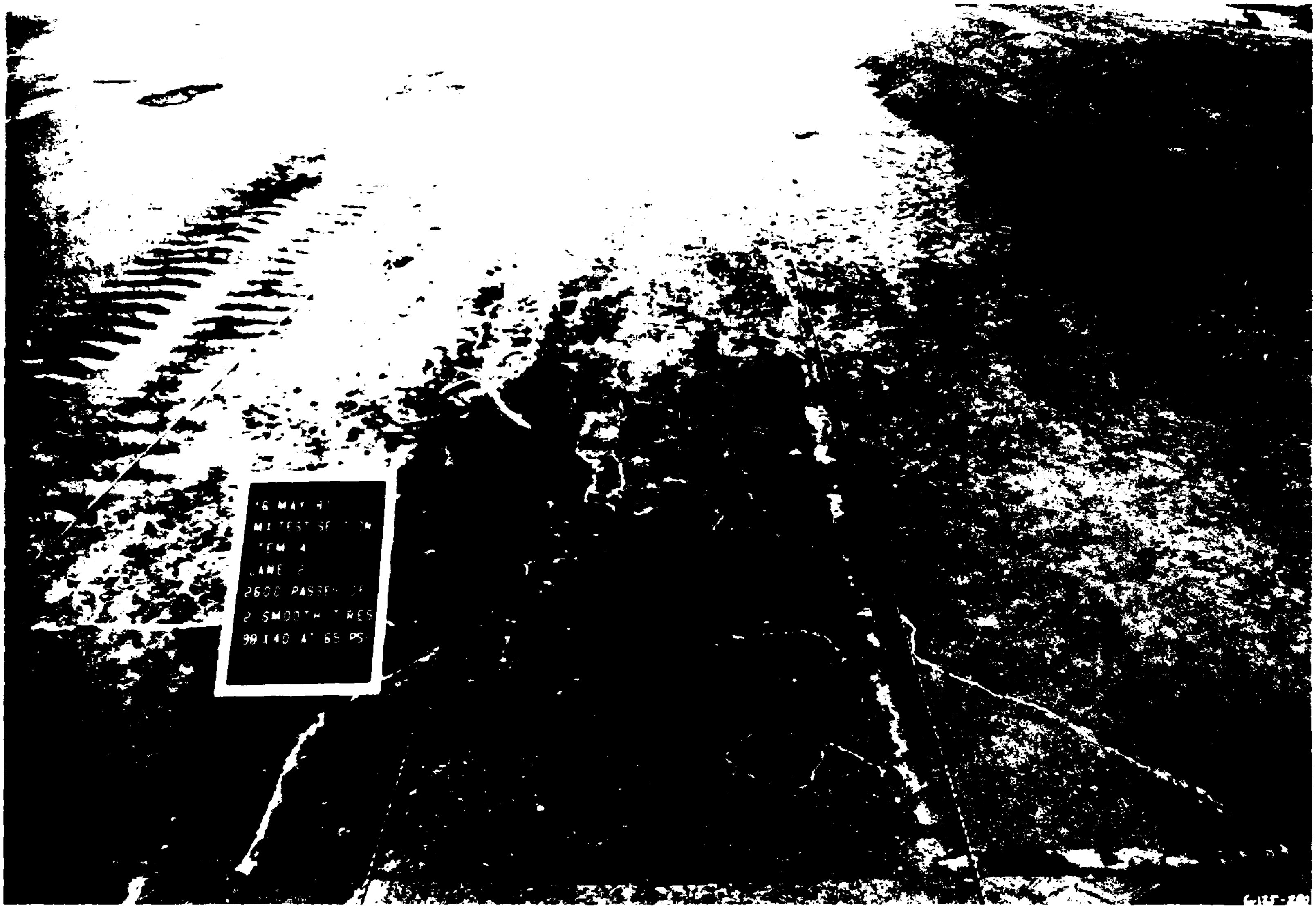


Photo A76. Lane 2, Item 4, after 2,600 passes (loose material removed from the surface)

Photo A77. Lane 2, Item 5, before traffic (0 passes)

Photo A78. Lane 2, Item 5, after 326 passes

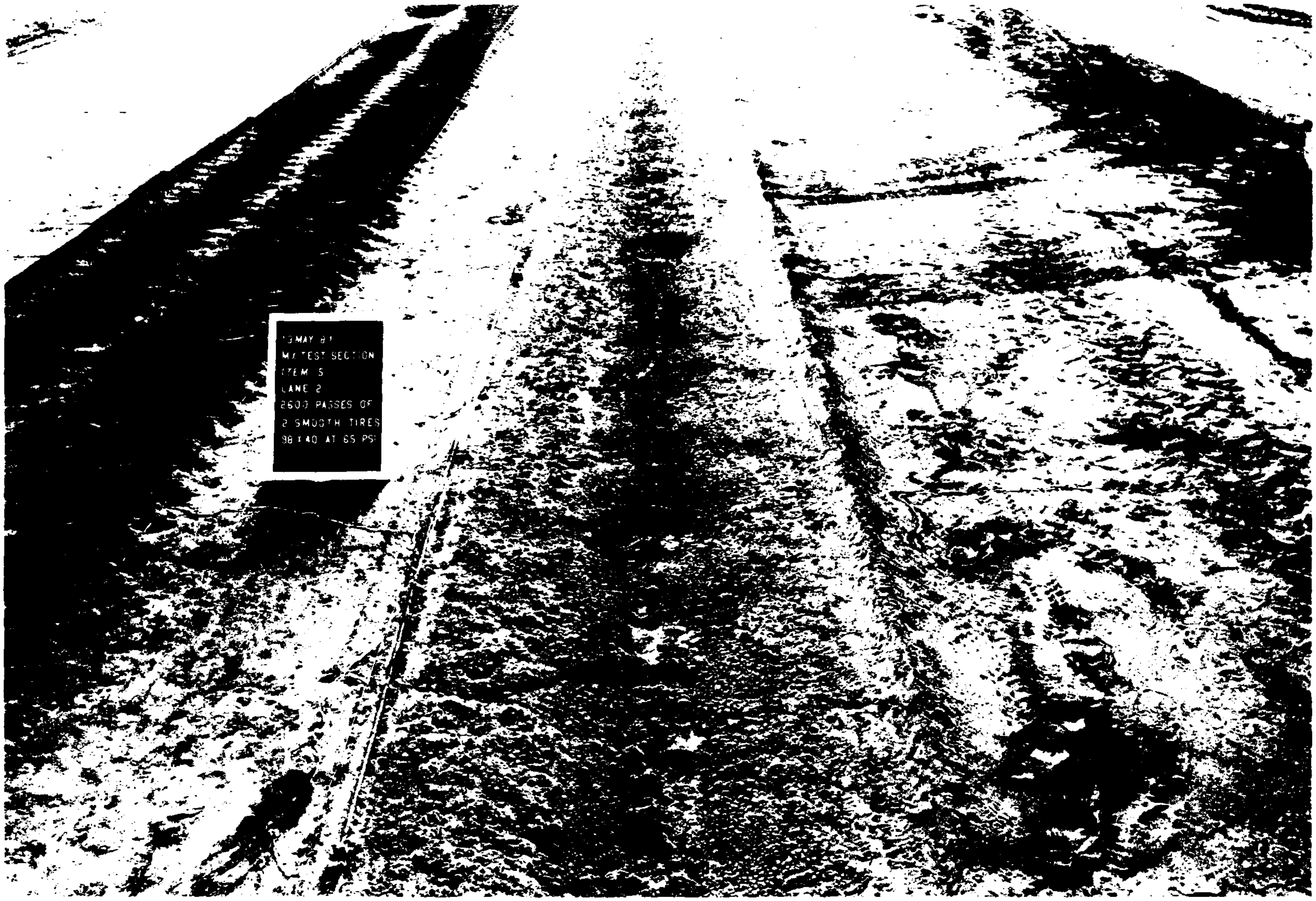


Photo A79. Lane 2, Item 5, after 2,600 passes

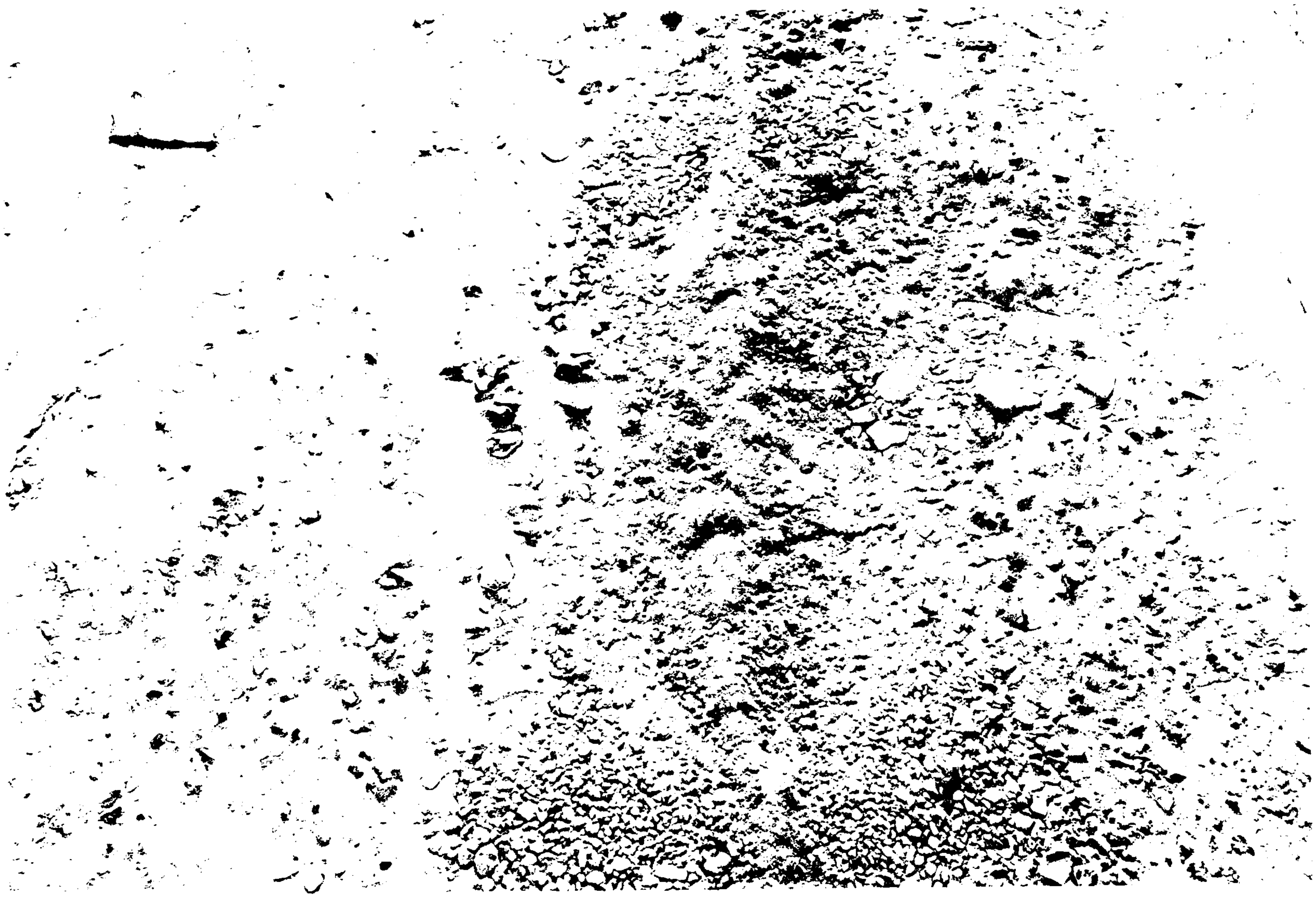


Photo A80. Close-up of surface, lane 2, Item 5, after 2,600 passes

Photo A81. Lane 2, Item 5, after 2,600 passes (loose material removed from the surface)

Photo A82. Lane 3, Item 1, before traffic (0 passes)

Photo A83. Lane 3, Item 1, after 326 passes

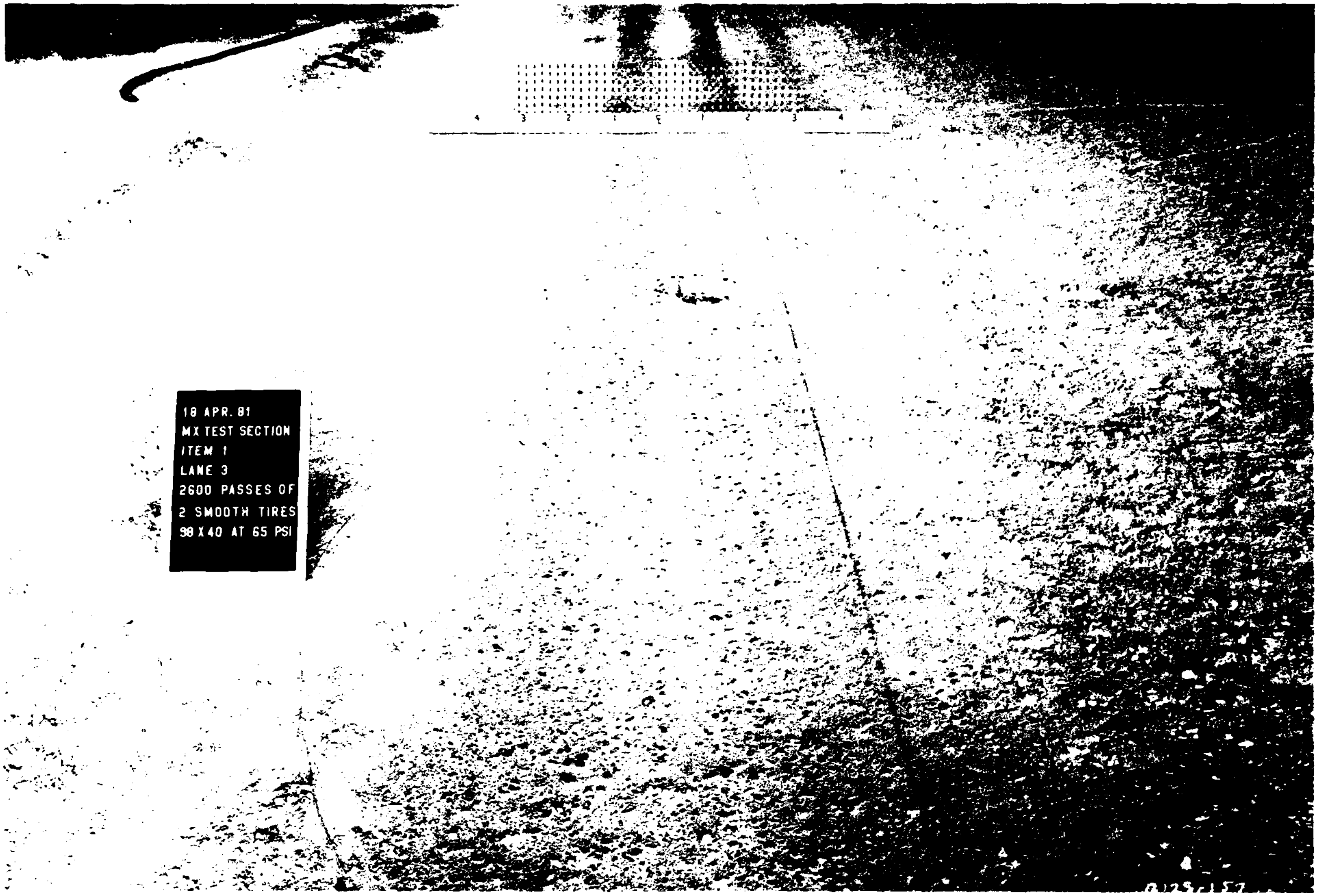


Photo A84. Lane 3, Item 1, after 2,600 passes

Photo A85. Lane 3, Item 2, before traffic (0 passes)

Photo A86. Lane 3, Item 2, after 326 passes

Photo A87. Lane 3, Item 2, after 2,600 passes

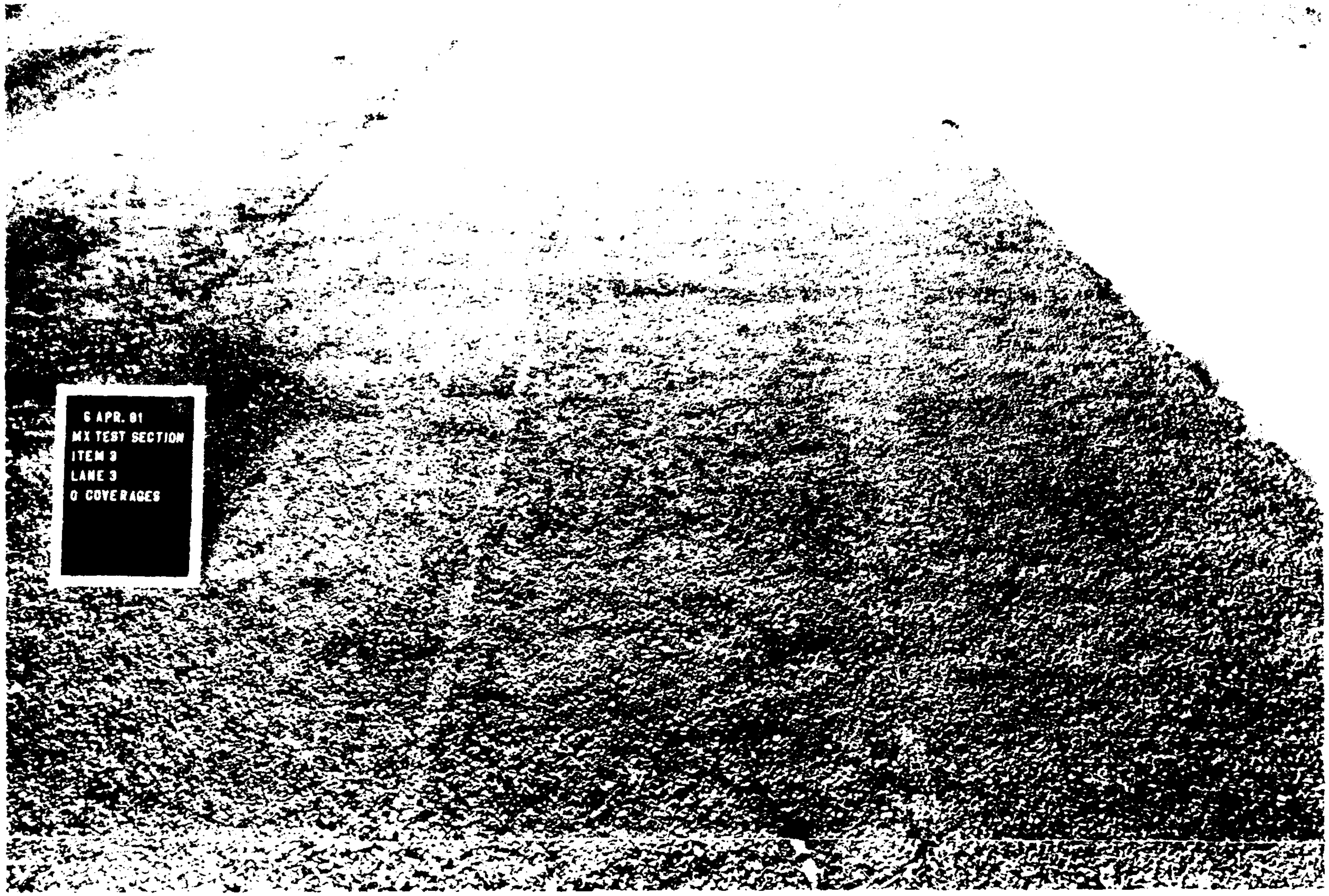


Photo A88. Lane 3, Item 3, before traffic (0 passes)

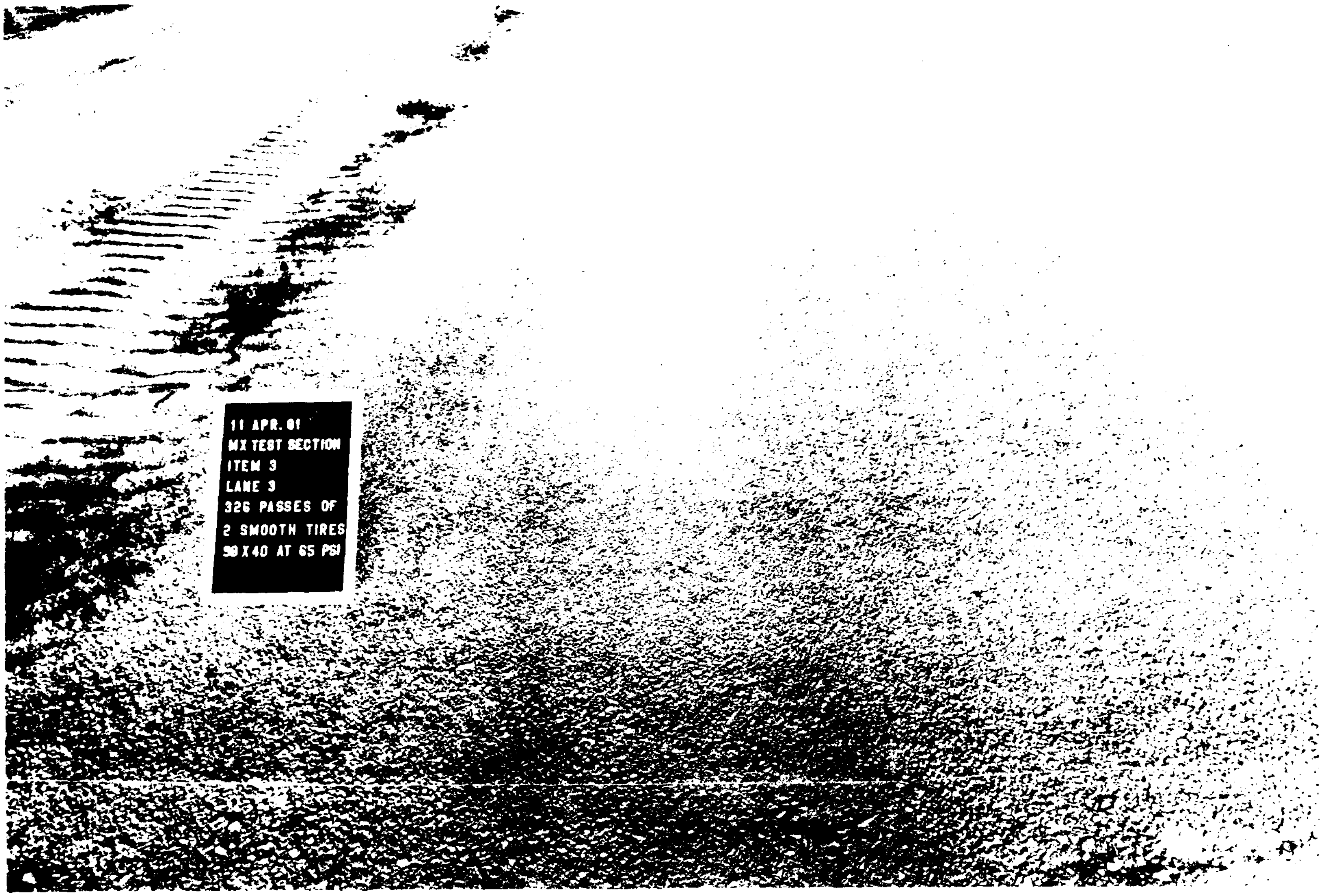


Photo A89. Lane 3, Item 3, after 326 passes

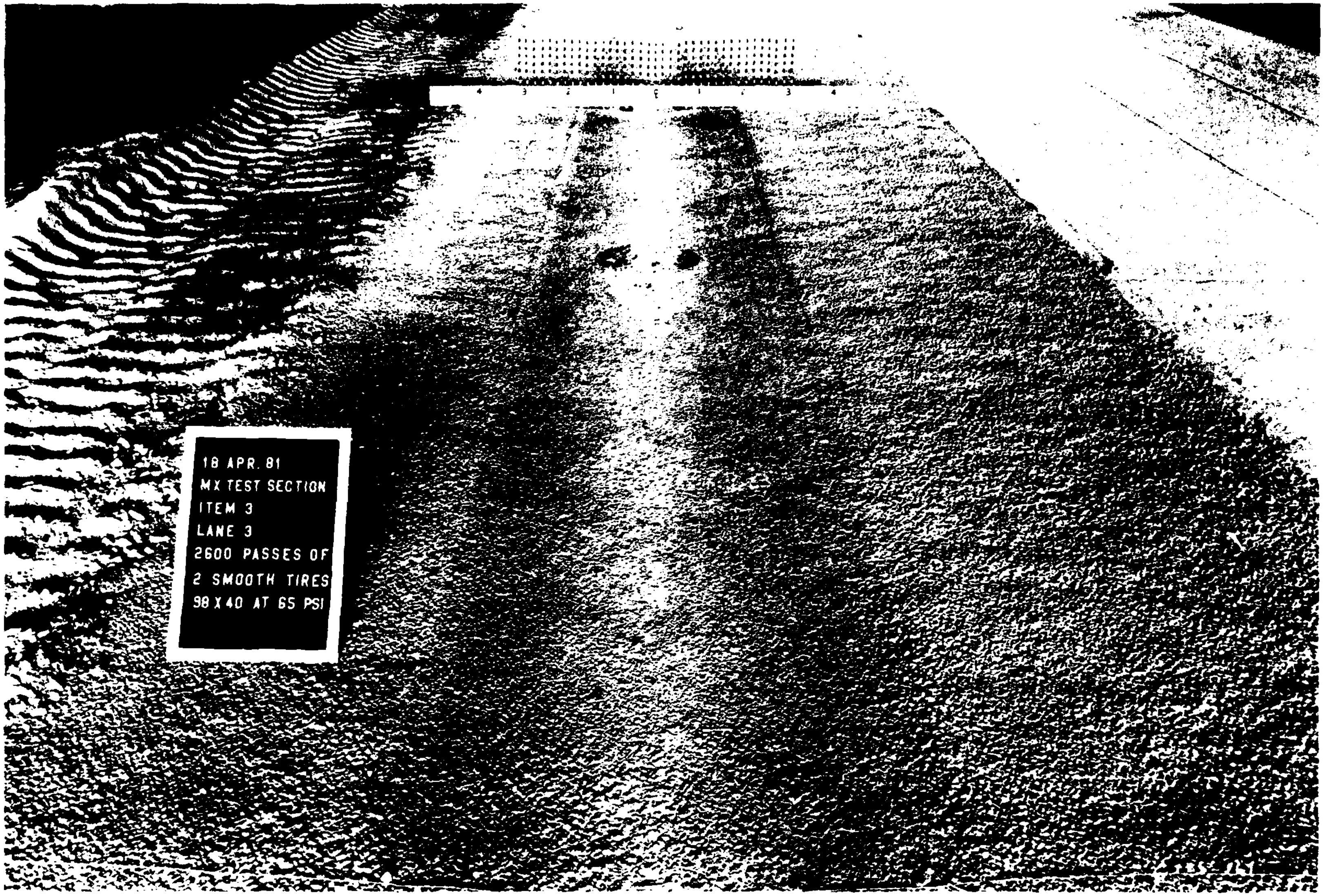


Photo A90. Lane 3, Item 3, after 2,600 passes

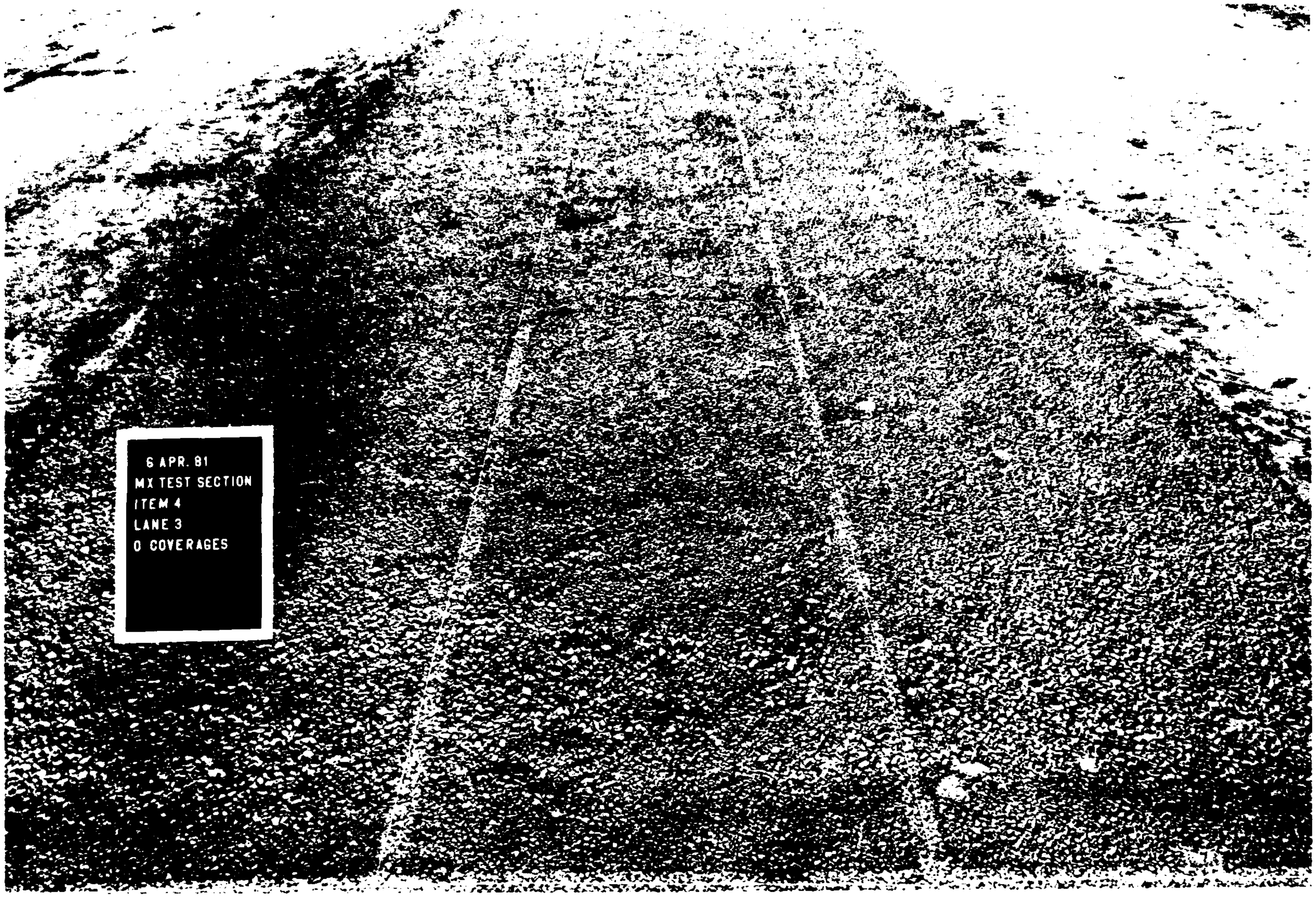


Photo A91. Lane 3, Item 4, before traffic (0 passes)

Photo A92. Lane 3, Item 4, after 326 passes

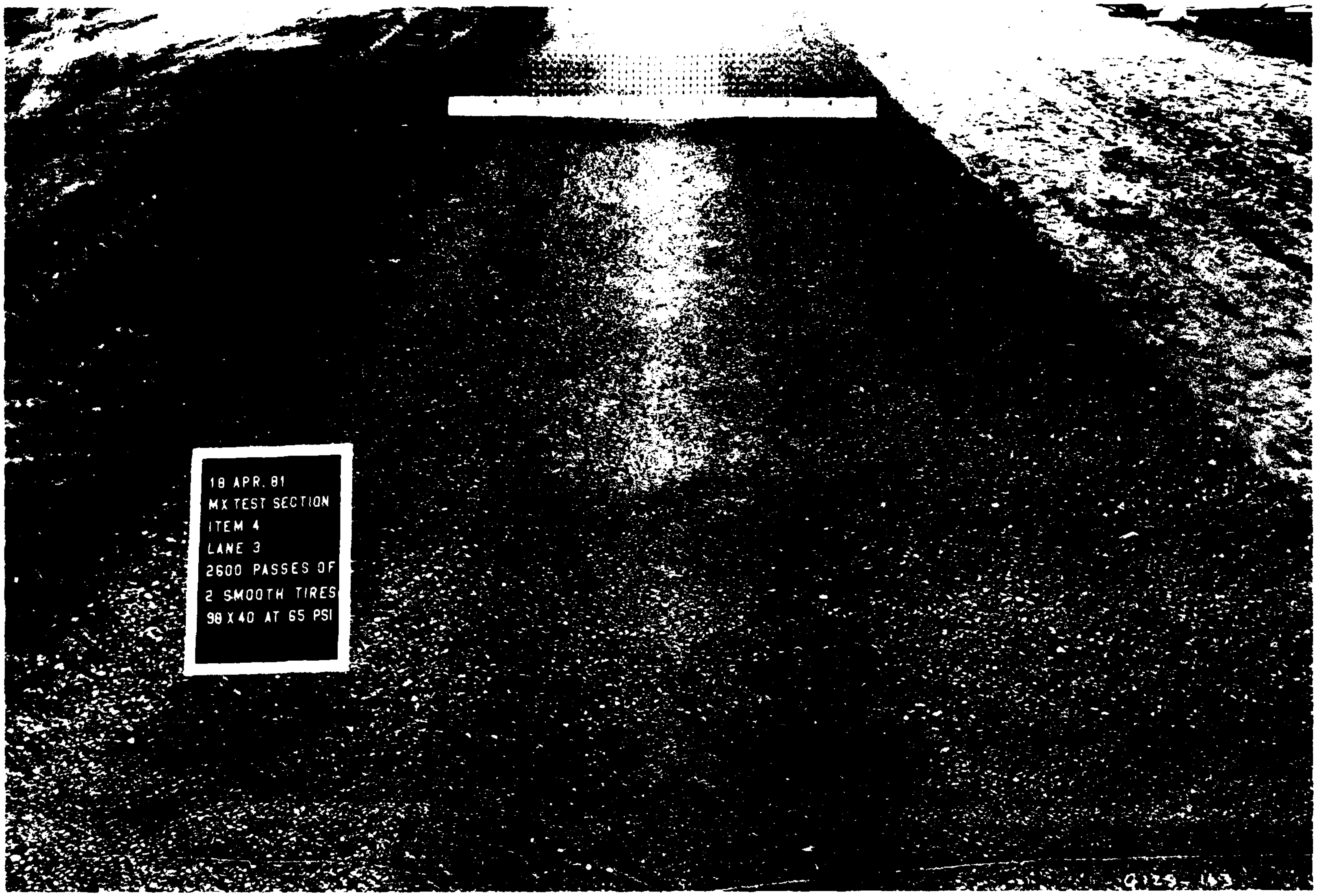


Photo A93. Lane 3, Item 4, after 2,600 passes

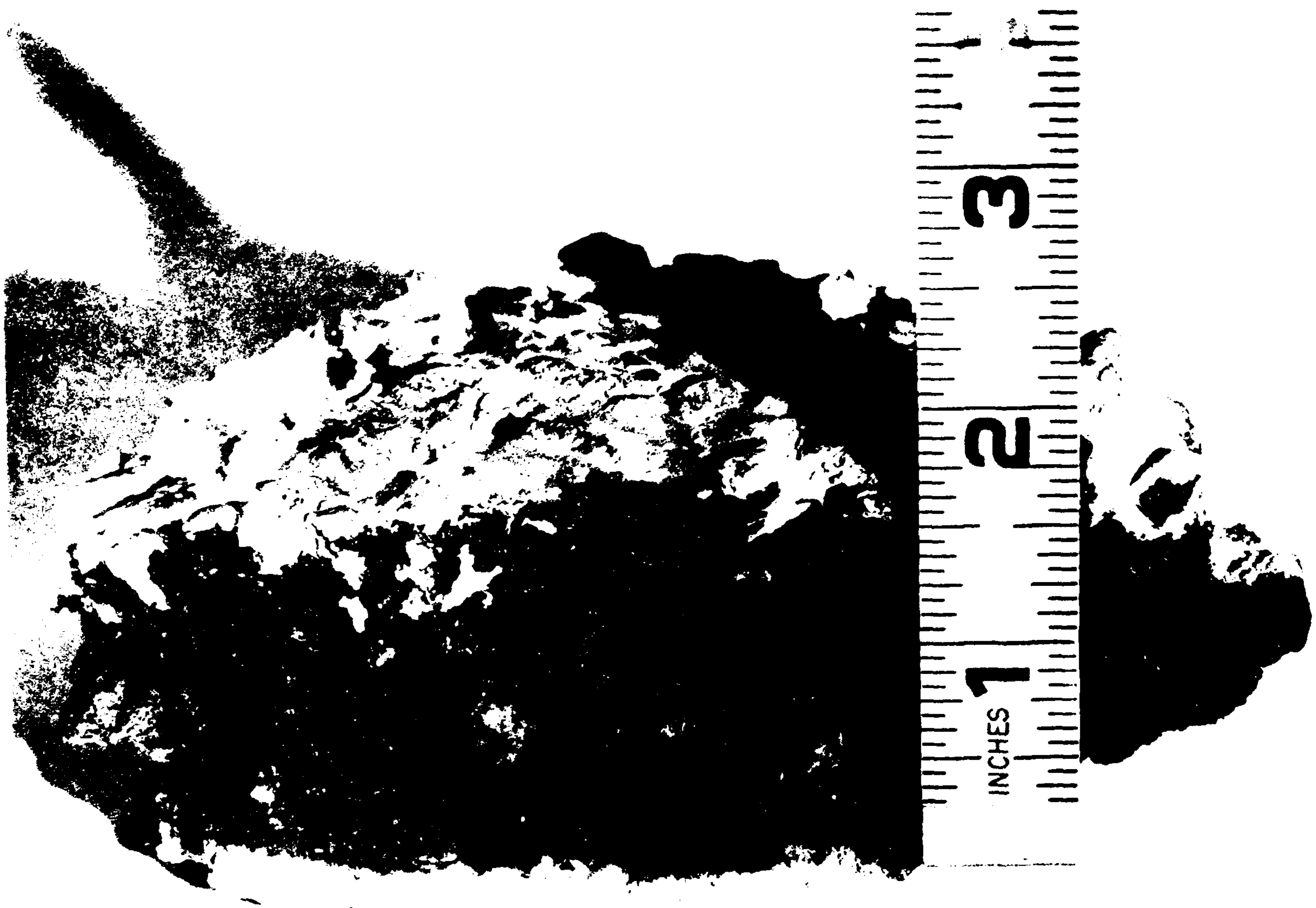


Photo A94. Portion of single-bituminous surface treatment removed after 2,600 passes

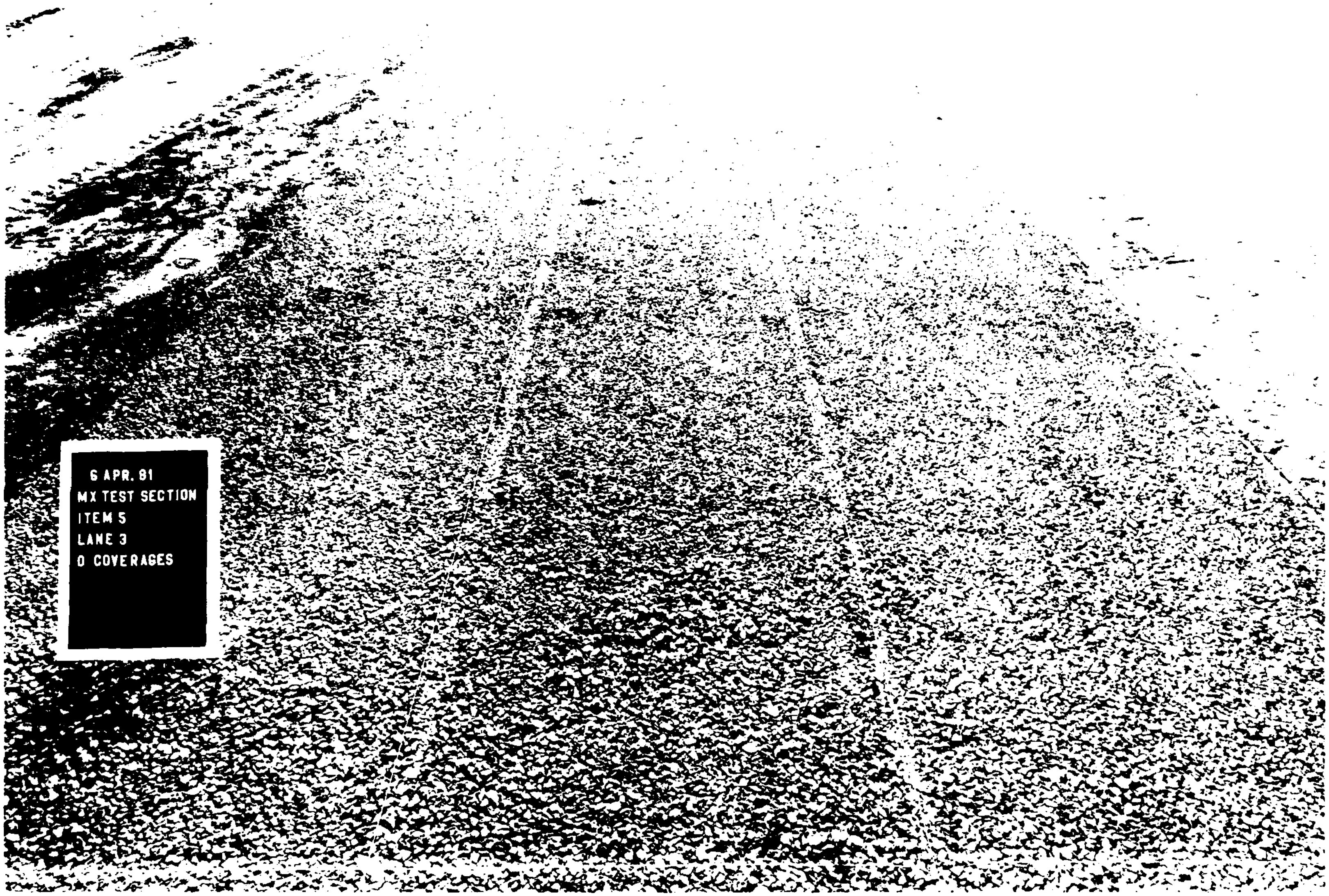


Photo A95. Lane 3, Item 5, before traffic (0 passes)

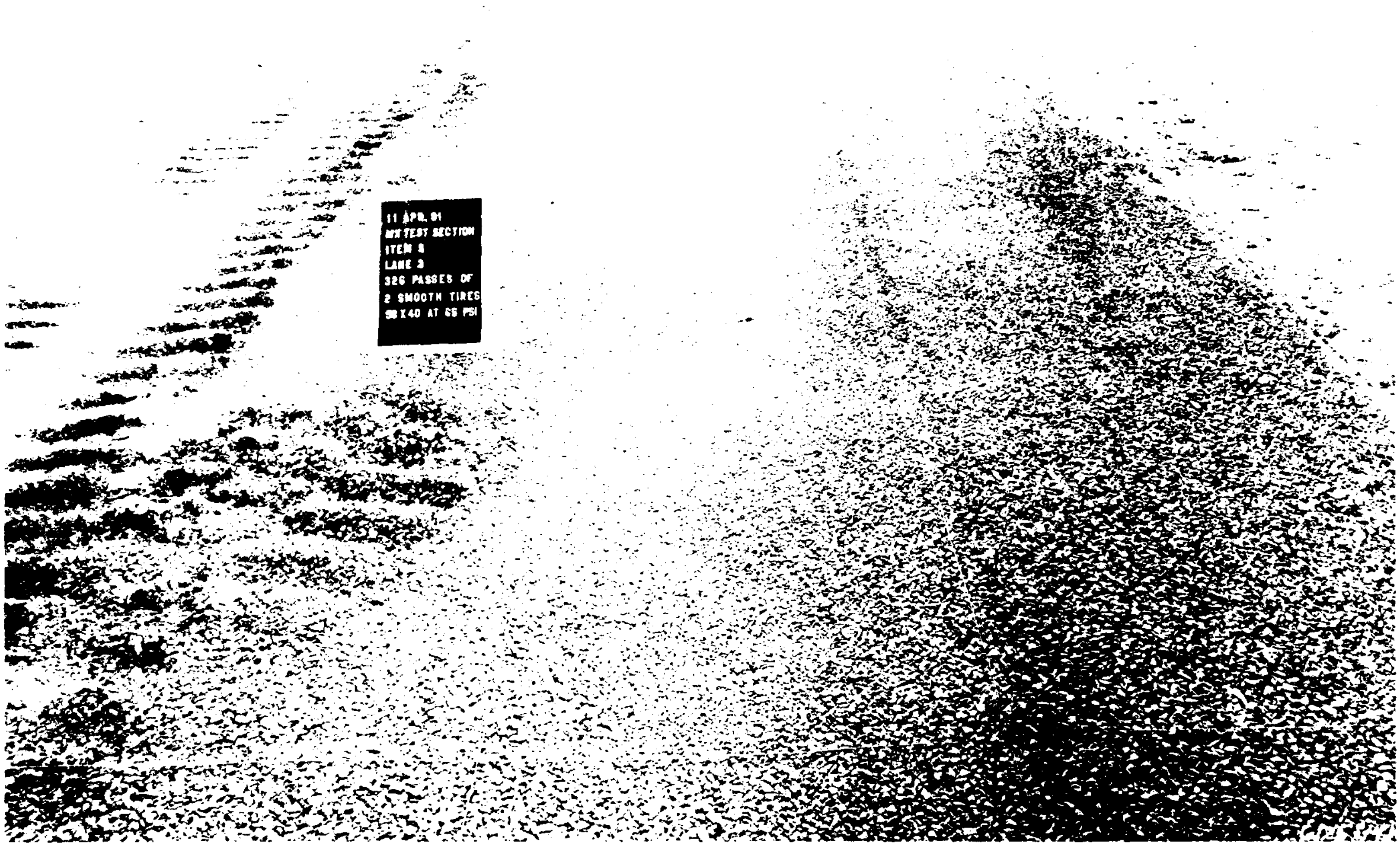


Photo A96. Lane 3, Item 5, after 326 passes

Photo A97. Lane 3, Item 5, after 2,600 passes

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